

Testimony Experience
 Timothy S. Lyons
 Sussex Economic Advisors, LLC.

Proceeding	For	Description
Massachusetts		
DPU 88-67-II	Boston Gas Company	Filed testimony and witness for rate reclassification of commercial and industrial customers for rate design proceeding.
DPU 90-55	Boston Gas Company	Filed testimony and witness for weather and other cost of service adjustments, rate design and customer bill impact studies for general rate case proceeding.
DPU 92-230	Boston Gas Company	Filed testimony describing the Company's position regarding rate treatment of vehicular natural gas investments and expenses.
Rhode Island		
Docket No. 2076	Providence Gas Company	Filed testimony and witness for rate reclassification of customers into new rate classes, rate design (including introduction of demand charges), and customer bill impact studies for rate design proceeding.
Docket No. 2025	Providence Gas Company	Filed report and witness supporting the Integrated Resource Plan filing, including a performance-based incentive mechanism.

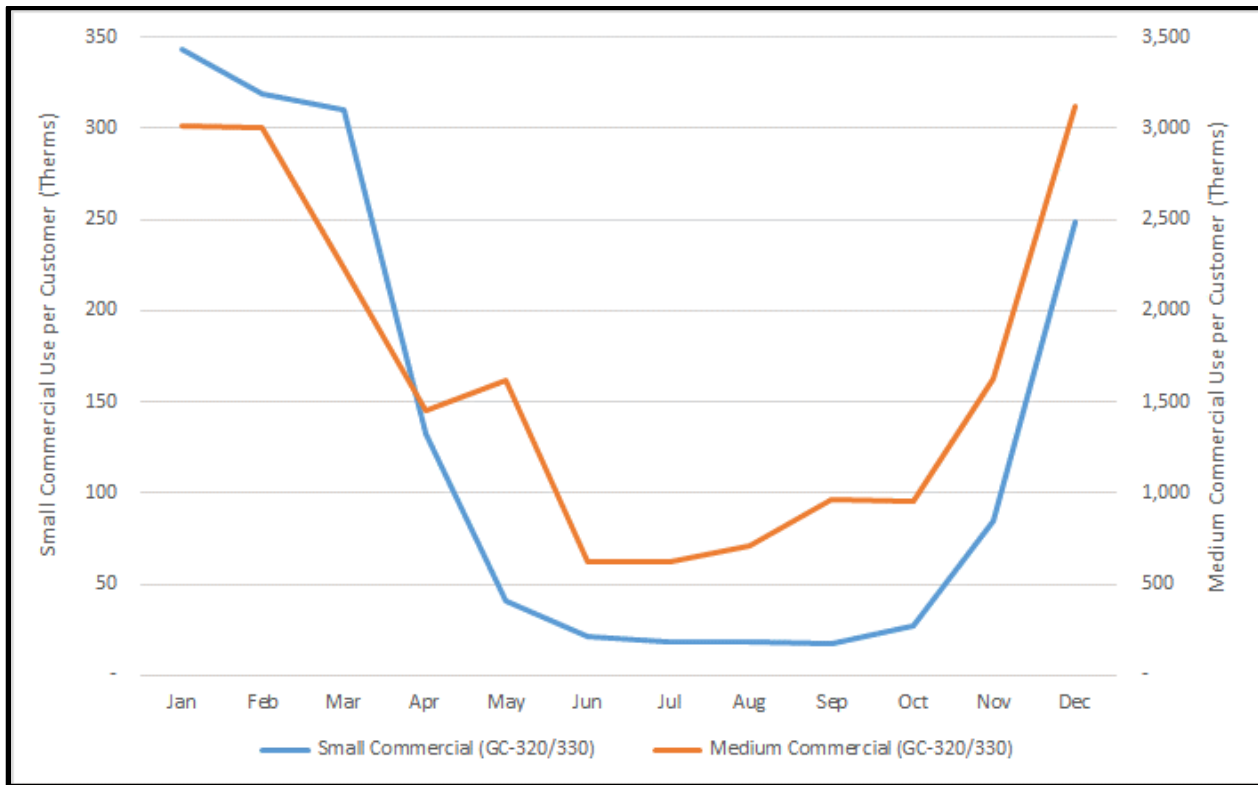
Proceeding	For	Description
Docket No. 2374	Providence Gas Company	Filed testimony and witness for rate design, customer bill impact studies and retail access tariffs for largest commercial and industrial customers for rate design proceeding.
Docket No. 2552	Providence Gas Company	Filed testimony and witness for rate design, customer bill impact studies and retail access tariffs for commercial and industrial customers, including redesign of cost of gas adjustment clause, for rate design proceeding.
Docket No. 1673	Providence Gas Company	Filed testimony and witness for changes in cost of gas adjustment factor related to projected under-recovery of gas costs.
Docket No. 1673	Providence Gas Company	Filed testimony and witness for pilot hedging program to mitigate price risks to customers.
Docket No. 2581 (1997)	Providence Gas Company	Filed testimony and witness for rate plan that fixed rates for three year period; included funding for critical infrastructure investments in accelerated replacement of mains and services, digitized records system, and economic development projects.
Docket No. 2581 (2000)	Providence Gas Company	Filed testimony and witness for extension of rate plan that began in 1997 and included certain modifications, including a weather normalization clause.

Proceeding	For	Description
Docket No. 1673	Providence Gas Company	Filed testimony and witness for changes in cost of gas adjustment factor related to extension of rate plan.
Docket No. 3100	Providence Gas Company	Filed testimony and witness for de-tariff and deregulation of appliance repair service, enabling the Company to have needed pricing flexibility.
Vermont		
Docket No. 7712	Vermont Gas Systems	Filed testimony and witness for market evaluation and analysis to support establishment of system expansion and reliability fund.
Docket No. 7970	Vermont Gas Systems	Filed testimony describing the customers to be served by a \$90 million natural gas expansion project to Addison County, Vermont; also describing the benefits of the project as well as the Company's programs and service offerings.
Connecticut		
Docket No. 13-06-02	Yankee Gas Company	Filed report and witness for review and evaluation of Hurdle Rate analysis.
Maine		
Case No. 2015-00146	Unitil	Filed testimony and witness for proposed gas expansion program, including a zone area surcharge.
Maryland		

Proceeding	For	Description
Case No. 9410	Sandpiper Energy (Chesapeake Utilities)	Filed testimony and witness for cost of service, rate design and bill impact studies for a general rate case proceeding. The testimony includes proposal for new residential and commercial classes.

Proposed Commercial Rate Classes

Use per Customer



Source: Liberty Utilities; Sussex analysis

Analysis of Proposed Residential Rate Classes

t-test Results

Rate Class	Average Annual Consumption (CCF)	Variance	Number of Accounts
Small	1,358	1,334,293	416
Medium	16,708	537,139,665	75
Rate Class	t-stat	p-value	
Medium/Small	-5.73	0.000%	
$t = (X_1 - X_2) / \text{sqrt} ((S_1 / N_1) + (S_2 / N_2))$			
Where:			
X_1 = Sample Mean Set 1			
X_2 = Sample Mean Set 2			
S_1 = Sample Variance Set 1			
S_2 = Sample Variance Set 2			
N_1 = Sample Size Set 1			
N_2 = Sample Size Set 2			

Source: Liberty Utilities; Sussex analysis

List of Small C&I Rate Classes

Company (State)	Small C&I Rate Class Availability	Monthly Charge
Size Based on Annual Use		
Ameren (IL)	<=600 therms per year	\$ 42.86
Peoples Gas (IL)	<500 Mcf per year	\$ 14.88
Wisconsin Public Service (WI)	<2,000 therms per year	\$ 17.00
Wisconsin Power & Light (WI)	<5,000 therms per year	\$ 11.86
Madison Gas & Electric (WI)	<25,000 therms per year	\$ 24.33
Laclede Gas (MO)	<5,000 therms per year	\$ 25.50
Average		\$ 22.74
Size Based on Meter Capacity		
Nicor Gas (IL)	<1,000 CFH	\$ 20.80
North Shore Gas (IL)	<=700 CFH	\$ 29.28
Vectren South - SIGECO (IN)	<=450 CFH	\$ 22.00
Vectren North - Indiana Gas (IN)	<=450 CFH	\$ 17.00
Average		\$ 22.27

Rate Reclassification: Who Buys What and When?

By Timothy Lyons and John Martin

In its quest to be more competitive, Boston Gas Company has taken a closer look at when customers buy gas and the costs of supplying that gas to establish more equitable and efficient rate classification criteria.

Utility rates based on historical and marginal costs do foster fair and efficient rate designs. Yet, this approach may fall short in providing a utility with competitive rates. The reason is that the classifications used to produce cost-based rate designs may have some inherent inequities. Classifications that group barbershops with processing plants, and condominiums with summer camps can violate the integrity of a cost-based rate design, as cost studies have shown.

In general, cost allocation studies show that large customers subsidize small because of their differences in fixed costs; while high load factor customers subsidize low load factor because they use capacity more efficiently. Thus, utility managers are faced with the task of eliminating these interclass subsidies. One way to remove those subsidies is by restructuring heterogeneous classifications in favor of designing new ones. Short of designing rates for each customer individually, utilities are forced to change their classification criteria in order to group customers with homogeneous characteristics. The problem for utility managers is determining what process should be used to change rate classifications.

In response to this need, we developed a procedure to

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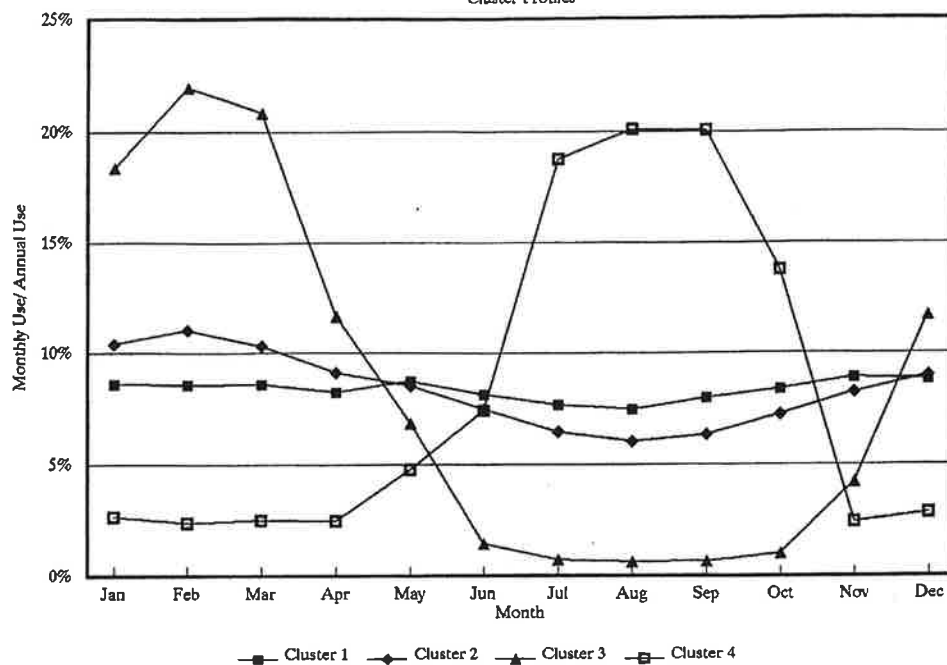
reclassify utility rate structures. The method includes using statistical techniques to group customers by consumption patterns and size. The reclassification procedure closely follows the steps commonly used in market segmentation studies. This article describes the process and statistical procedures applied in developing a new rate structure for Boston Gas, which in November 1989 began billing commercial and industrial customers under the new structure.

Historical Background

In 1987, Boston Gas had two commercial and industrial (C&I) rate classifications. The rate selection was based on end-use. Heating customers were placed in one rate class while non-heating customers were placed in the other. In some cases — restaurants for example — customers were supplied two meters to register both the heating and non-heating use. Over 35,000 customers were billed on C&I rates. Customer consumption levels on a given rate ranged substantially.

There were two basic problems with this rate structure. First, costs were not assigned on the basis of why customers use gas but when customers use gas. Regardless of

Exhibit 1
Cluster Profiles



whether customers use gas for space heating or cooking, it costs a gas utility more to serve its customers in the winter than in the summer. For example, customers — like summer camps — that use space heating equipment during the summer incur less cost to a utility's system than customers using the same equipment during the winter. This differential is a result of several factors including pipeline demand charges, peaking supply, and system capacity costs. Second, the cost structure in serving both small and large customers is different. Although all customers require a substantial investment, this amount is a smaller portion of large customers' total cost than that of small customers.

The Approach

The task for Boston Gas was to replace its two heterogeneous C&I rate classifications with more homogeneous forms to more accurately reflect the cost of service. Load research would have been useful in constructing these new classes, but the company, like many gas utilities, did not have a viable load research program. To acquire such a program would have delayed the utility's rate restructuring by at least two years. At the same time, the utility was experiencing — from its very large customers — pressure to lower its rates. Preliminary studies showed that a rate restructuring would benefit some of those customers. As a result, the company selected the process outlined here to design its new rates.

The first step was to establish usage pattern classifications by grouping customers based on their seasonal requirements. This procedure required application of both

necessary for cross-validation tests.

A hierarchical cluster procedure was applied to each of the four samples. Cluster analysis is a multivariate statistical method used for grouping observations that have similar characteristics. In this study, the cluster analysis was used to group customers with similar annual monthly usage patterns. It could not be assumed that the usage patterns for the two rate classes were uniform.

In order to adjust for customer consumption levels, the monthly usage data was standardized. This was accomplished by taking, for each customer, monthly use as a percentage of annual consumption. In this way, all customers have a total use of 1, and the percentage for each of the 12 months provides a scaled interval measure for the cluster analysis.

Cluster Results

The cluster analysis produced groups of customers that had similar monthly usage patterns. *Exhibit 1* provides an illustration of the four clusters. The results were consistent for both the heating and non-heating rate classifications. The results showed that one group comprised customers with high percentages during the winter months (cluster 3); while another group comprised customers with high percentages during the summer months (cluster 4). Several of the cluster solutions were further tested using a multiple discriminant analysis. Based on the results from this test, and some interpretive judgment, a four cluster solution was selected as being representative of all C&I load profiles. *Table 1* provides a description of each cluster solution.

cluster and multiple discriminant analyses. The next step was to establish size classifications by grouping customers based on their maximum consumption levels. New C&I rates were derived by combining these two classification criteria to form a market segmentation matrix.

Usage Pattern Classifications

Usage pattern classification is important to utility managers because there are cost differences among the months of the year. From a population of over 35,000 C&I customers, four samples of 600 customers were extracted. Samples 1a and 2a comprised customers from the non-heating class, while Samples 1b and 2b comprised customers from the heating class. The selection of two samples from each rate class was

Multiple Discriminant Functions

Following the selection process, each of the two rate classes now had two samples containing four cluster solutions. Multiple discriminant analysis was then applied to one customer sample from each rate class to derive a set of discriminant functions. These functions were then used to predict the cluster membership of the second customer sample. In this way the validity of the equations (ability to accurately predict) and similarity of the clusters were tested using a holdout sample. The results were successful in predicting cluster membership — the monthly usage characteristics were significantly different among the four clusters, and the discriminant functions were accurate in placing customers into their correct clusters.

The next step was to validate the solutions for the combined heating and non-heating classifications. This was accomplished by performing the same cross-validation test as before with the equations for one sample used to predict another. Once more, the results were highly significant.

The final step was to merge the samples and use the sample population (n = 2,400) to derive a set of discriminant functions to classify all Boston Gas' C&I customers. Following this task, all customers were grouped into one of four classifications.

Table 1

Cluster Analysis Generated Customer Groups

Cluster 1, 22.7 percent: This customer group has a very flat load pattern, indicating usage does not vary appreciably with each season (either winter or summer), indicative of processing customers.

Cluster 2, 23.0 percent: This customer group is similar to cluster 1, except that the usage pattern reflects a slightly higher usage percentage in the winter followed by a slightly lower percentage in the summer. Although the usage pattern is still relatively flat, it does reflect some degree of seasonality. This is indicative of water heating customers.

Cluster 3, 53.8 percent: This customer group has a usage pattern that includes a high usage percentage in the winter followed by a low usage percentage in the summer. This indicates a high degree of seasonality in annual usage, and is indicative of central heating customers.

Cluster 4, 0.5 percent: This customer group has a usage pattern that has a low usage percentage in the winter followed by a high usage percentage in the summer, reflecting a peak usage that is coincident with the company's overall off-peak usage period. This is indicative of air-conditioning customers.

Table 2

Market Segmentation Matrix: Number of Customers

Usage Profile	Small	Medium	Large	X-Large	Total
Cluster 1	5,857	1,162	1,011	115	8,145
Cluster 2	6,359	858	919	105	8,241
Cluster 3	13,389	2,775	2,865	239	19,268
Cluster 4	135	29	19	1	184
Total	25,740	4,824	4,814	460	35,838

Size Classifications

As the usage pattern classification process treated all customers the same regardless of size, the size classification process treated all customers the same regardless of usage pattern. Size classifications are important because large customers typically have different cost characteristics than small ones.

Meter capacity was used as a proxy to measure size. It measures the maximum amount of gas a customer can consume at any given moment. Since capacity costs — such as mains, services, and meters — drive a large portion of a utility's cost of service, capacity or maximum consumption is a better proxy for size than historical usage. In fact, historical usage may understate the actual or potential size of a customer in those cases where a customer consumes gas for emergency generation or standby service. Therefore, since capacity costs are based on maximum capacity and not on historical usage, size was determined based on customers' meter capacity.

As with the usage pattern classification, the four samples of 600 customers were used to generate frequency distributions. These distributions identified capacity levels that contained the fewest number of customers. Capacity levels were measured in cubic feet per hour (cfh) based on customers' meters. Using this information in conjunction with information obtained through interviews with engineering and marketing personnel, four size classifications were chosen. They were: small, 0 to 500 cfh; medium, 501 to 1,200 cfh; large, 1,201 to 12,000 cfh; x-large, over 12,000 cfh. These criteria were applied to all customers.

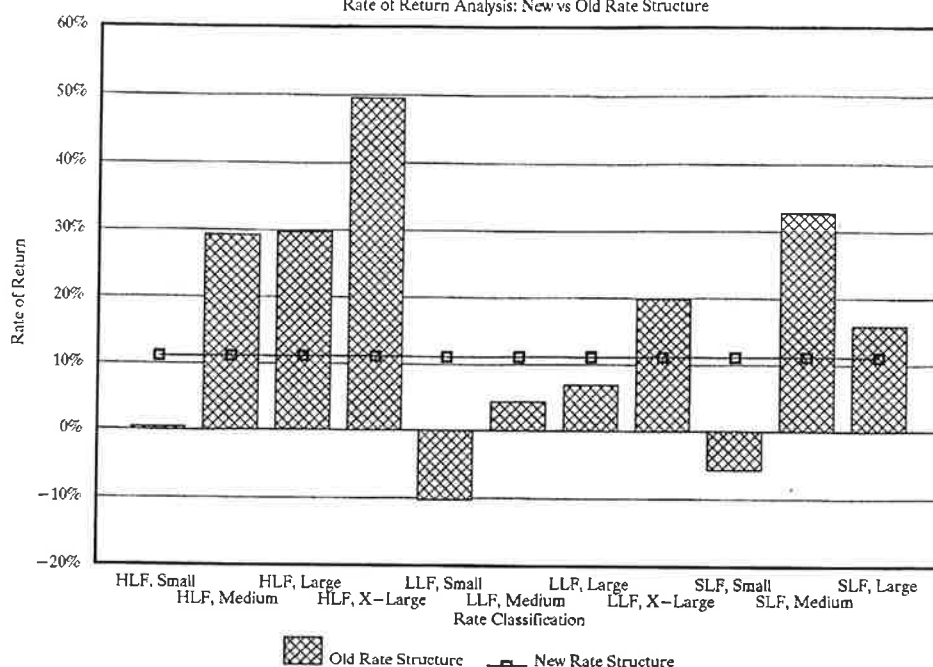
Market Segmentation Matrix

As mentioned earlier, the reclassification methodology combined the usage pattern and size criteria to form a new C&I rate classification criteria. Combining the criteria resulted in the matrix shown in *Table 2*.

Using the segmentation matrix in *Table 2*, Boston Gas was able to derive cost estimates based on each grouping's usage, revenue, and population characteristics. Historical and marginal cost information was then calculated for each group.

Exhibit 2

Rate of Return Analysis: New vs Old Rate Structure



market segmentation analysis had on individual rates of return. For example, under the old rate structure, customers in the HLF/x-large class were charged rates that earned a 50 percent rate of return. This was in sharp contrast to other customer classes, like the LLF/small, which were charged rates that earned negative rates of return. Since at this time, the utility's overall rate of return was roughly 11 percent, it was evident that some customer groups were subsidizing others. Customer segmentation, in conjunction with cost allocation analyses, equalized these rates of return.

The analysis enabled Boston Gas to segregate its C&I customers in 11 rate classifications. As a consequence, Boston Gas has achieved its goal of designing

Menu of Rates

In evolving from customer segmentation groups to rate classifications, Boston Gas made the following alterations. First, the distinction between cluster 1 and cluster 2 was eliminated. That decision was based on the similarities in their cost of service. Second, the classification criterion for usage profile was changed to seasonal rather than monthly percent of use. This concept was administratively easier to implement. Finally, any classification that included an insufficient number of customers was eliminated — namely, cluster 4, size x-large.

In establishing the menu of rates, the criterion used to classify usage profile was peak percent. Peak percent is defined as the quotient of a customer's peak use and annual use. Peak use comprises a customer's November through April usage. Customers with peak percentages of 70 percent or greater were placed in the Low Load Factor (LLF) classification. These customers are represented by cluster 3. Customers with peak percentages between 40 percent and 70 percent were placed in the High Load Factor (HLF) classification. These customers are represented by clusters 1 and 2. Finally, customers with peak percentages below 40 percent were placed in the Summer Load Factor (SLF) classification. All information used to calculate a customer's load factor was taken from the company's revenue billing system.

Conclusion

Boston Gas constructed a menu of rates based on its customer segmentation analysis. The results of this change are illustrated in *Exhibit 2*, and show the effects that the

equitable, efficient — and most important — competitively priced rates. Since the company's rate decision in November 1989 at least two other Massachusetts gas utilities have chosen the 70 percent break point between the high load factor and low load factor rate classifications. Although their methods for arriving at this point were different, these results confirm the accuracy and consistency of the method described in this article.

These customer classifications have allowed Boston Gas to enter into a new era of rate design. Not only are the classifications used to design rates for existing customers, but they are also used as benchmarks for designing other nontraditional rates such as demand, transportation, and natural gas vehicle rates. The benefits of such a design accrue not only to the utility's traditional customer base, but also to the nontraditional, new markets targeted by the utility. This has fostered Boston Gas' efforts to design cost-based rates that enhance its competitive position.

Timothy S. Lyons is the director of rates and revenue analysis at Boston Gas Company, a wholly owned subsidiary of Eastern Enterprises. **Mr. Lyons** earned his B.A. in liberal arts from St. Anselm College, in Manchester, New Hampshire, and his M.A. in economics from Pennsylvania State University. He is currently a candidate for his M.B.A. degree at Babson College. **Mr. Lyons'** responsibilities include rate design, load research, sales and revenue forecasting, and other rate-related issues.

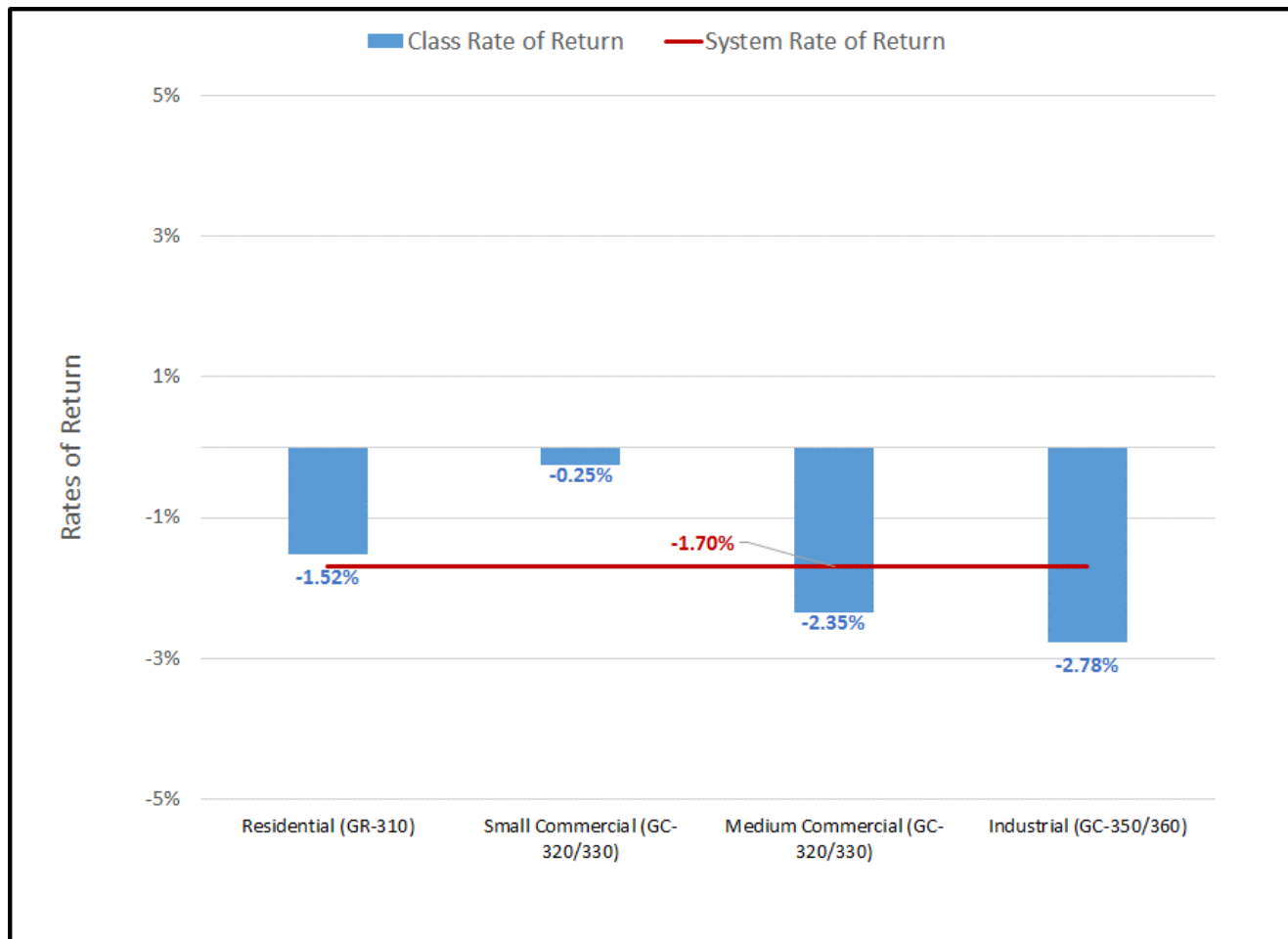
John Martin is an associate professor of marketing at Babson College, and holds a degree in economics from the University of Western Australia. He received his M.B.A. from the University of California at Los Angeles, and his Ph.D. from Northwestern University. **Mr. Martin** has consulted for organizations in the United States and Australia and is a director of Chadwick Martin Bailey, Inc., in Boston, Massachusetts. **Mr. Martin** also sits on the board of examiners for the Malcolm Baldrige National Quality Award.

Location:

Lyons Direct Exhibit TSL-1 – TSL-10.pdf
Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities
Docket No. RPU-2016-xxxx
Lyons Exhibit TSL-4
Page 1 of 2

COSS Results

Class Rates of Return vs. Overall Rate of Return at Current Delivery Service Rates



Location: Lyons Direct Exhibit TSL-1 – TSL-10.pdf
 Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities
 Docket No. RPU-2016-xxxx
 Lyons Exhibit TSL-4
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COSS Results (cont.)

Class Rates of Return vs. Overall Rate of Return at Current Delivery Service Rates

Liberty Utilities - Iowa COSS Summary	Total Company	Residential GR-310	Commercial Small GC-320/330(a)	Commercial Medium GC-320/330(b)	Industrial GC-340/350
Current Delivery Service Rates					
Rate base	6,531,685	3,722,496	740,903	1,164,970	903,316
Net operating income	(110,828)	(56,574)	(1,843)	(27,337)	(25,074)
Rate of return	-1.70%	-1.52%	-0.25%	-2.35%	-2.78%
Relative rate of return	100%	90%	15%	138%	164%
Revenues	\$ 2,119,128	\$ 1,253,332	\$ 226,452	\$ 268,643	\$ 370,700
Test Period Usage (CCF)	12,239,554	2,843,786	587,894	1,463,575	7,344,300
Revenue per CCF	\$ 0.1731	\$ 0.4407	\$ 0.3852	\$ 0.1836	\$ 0.0505
Revenues at Equalized Rates of Return					
Rate of return	7.76%	7.76%	7.76%	7.76%	7.76%
Return requirement	506,859	288,866	57,494	90,402	70,097
Revenue required	3,176,268	1,844,534	328,004	470,148	533,581
Revenue deficiency	1,057,139	591,202	101,552	201,505	162,881
Percent increase required	49.9%	47.2%	44.8%	75.0%	43.9%
Test Period Usage (CCF)	12,239,554	2,843,786	587,894	1,463,575	7,344,300
Revenue Required per CCF	\$ 0.2595	\$ 0.6486	\$ 0.5579	\$ 0.3212	\$ 0.0727
Revenue Deficiency per CCF	\$ 0.0864	\$ 0.2079	\$ 0.1727	\$ 0.1377	\$ 0.0222

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Lyons Direct TSL-1 –TSL-10.pdf
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Summary of Allocators - Iowa
 External Allocators

Allocator	Allocation of:	Allocator Derivation	Rationale
C1_customers	Meter reading (902), customer records and collections (903), information, institutional advertising (909), Advertising (913) expenses. Customer deposits.	Allocator is derived based on the percentage of customers within each rate class.	Costs are generally related to the number of customers. This is consistent with the approach taken in the most recent cost of service study.
C3_meters	Meters (381), meter installation (382) and house regulators (383) plant, and related accumulated depreciation and depreciation expense. Operating expenses of Meters and House Regulators (878) and maintenance expenses of Meters and House Regulators (893).	Allocator is derived based on the number of meters by type in each rate class and by the current cost of each meter by type. The approach recognizes that the Company does not have historic meter costs by customer or rate class.	Costs are generally related to the number of meters and the cost of each meter. This is consistent with the approach taken in the most recent cost of service study.
C4_industrialmeters	Industrial metering (385) plant, and related accumulated depreciation and depreciation expense.	Allocator is based on customers within the rate classes that make up the industrial metering plant.	Costs are generally related to the number of meters and the cost of each meter.

Location:

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Allocator	Allocation of:	Allocator Derivation	Rationale
C5_services	Services (380), and related accumulated depreciation and depreciation expense. Maintenance of services (892) expenses.	Allocator is derived based on the number of services installed by type in each rate class and by the cost of each service installed by type. The type of service installed was determined by the type of meter. The approach recognizes that the Company does not have historic services installed costs by customer or rate class.	Costs are generally related to the number of services and the cost of each services. This is consistent with the approach taken in the most recent cost of service study.
C6_mains&services	Mains and services (874) expenses.	Allocator is based on weighted average of the demand allocator (D2_peak&average) and services allocator (C5_services).	Costs are generally related to the mains and service investment.

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Allocator	Allocation of:	Allocator Derivation	Rationale
D2_peak&average	<p>Transmission plant (365, 366, 367, 369), and distribution plant (375, 376, 378, 379), and related accumulated depreciation and depreciation expense.</p> <p>Distribution expenses (871, 872, 874, 887).</p>	<p>Allocator is derived based on the Average and Peak allocator, which represents the weighted average of: (a) percentage of peak or design day usage within each rate class, and (b) percentage of average day usage within each rate class. The allocator measures the responsibility of each rate class towards the peak or design day and the average day. The peak day allocator is based on a regression analysis of actual degree days on actual heating use during the test year. The weighting is derived based on load factor.</p>	<p>Costs are generally related to both the peak or design day usage and average day usage. This is largely consistent with the approach taken in the prior cost of service study, except measurement and equipment (379) which was allocated based on usage in the prior study.</p>
D3_firmdemand	Gas storage.	<p>Allocator is based on firm peak demands.</p>	<p>Costs are generally related to peak or design day usage. This is consistent with the approach taken in the prior cost of service study.</p>
D4_totalrevenues	Uncollectible expense	<p>Allocator is derived based on percentage of revenues within each rate class.</p>	<p>Costs are generally related to total revenues. This is largely consistent with the approach taken in the prior cost of service study.</p>

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Allocator	Allocation of:	Allocator Derivation	Rationale
D7_throughput	Regulatory commission expense (904).	Allocator is derived based on percentage of throughput within each rate class.	Costs are assigned based on throughput. This is consistent with the approach taken in the prior cost of service study.

Summary of Allocators

Internal Allocators

Allocator	Allocator for:	Allocator Derivation	Rationale
Plant_375-386	Distribution land and land rights (374) and other distribution equipment (387) plant, and related accumulated depreciation and depreciation expense.	Allocator based on distribution plant, FERC accounts 375-386.	Costs are generally related to the specified distribution plant accounts.
Plant_P/T/D	Intangible (301, 303), and Tools, shop and equipment (394) plant, and related accumulated depreciation and depreciation expense.	Allocator is derived based on production, transmission and distribution plant.	Costs are generally related to specified plants costs. This is consistent with the approach taken in the prior cost of service study.

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Allocator	Allocator for:	Allocator Derivation	Rationale
Plant_Total	Proforma plant adjustments, prepaid expenses, adjustments to accumulated depreciation, accumulated deferred income taxes. Outside services employed (923), Property insurance (924), General plant rents (931), and property taxes.	Allocator based on total gas plant.	Costs are generally related to total plant costs. This is consistent with the approach taken in the prior cost of service study.
EXP_871-880	Distribution supervision and engineering (870).	Allocator based on distribution expenses, FERC accounts 871-880.	Costs are generally related to the specified distribution O&M expense accounts.
EXP_Total	Cash working capital, miscellaneous expenses.	Allocator based on total O&M expenses.	Costs are generally related to total O&M expenses.
Labor_871-880	Distribution supervision and engineering (870).	Allocator based on distribution expenses, FERC accounts 871-880.	Costs are generally related to distribution expense accounts.

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Allocator	Allocator for:	Allocator Derivation	Rationale
Labor_total	<p>Administrative and general (389, 390, 391, 392, 396, 397, 398, 399) plant, and related accumulated depreciation and depreciation expense.</p> <p>Administrative and general (920, 921, 922, 926, 930) expenses.</p> <p>Labor additions, unemployment taxes; Medicare; and FICA.</p>	Allocator based on total labor costs.	Costs are generally related to total labor costs. This is consistent with the approach taken in the prior cost of service study.
Rate Base	Interest on customer deposits and interest expense.	Allocator based on rate base.	Costs are generally related to rate base. This is consistent with the approach taken in the prior cost of service study.

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	C	D	E	F	G
1	<u>Liberty Utilities - Iowa</u>		Residential	Commercial	Commercial	Industrial
2	COSS Summary	Total		Small	Medium	
3		Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4						
5	Current Delivery Service Rates					
6	Rate base	6,531,685	3,722,496	740,903	1,164,970	903,316
7	Net operating income	(110,828)	(56,574)	(1,843)	(27,337)	(25,074)
8	Rate of return	-1.70%	-1.52%	-0.25%	-2.35%	-2.78%
9	Relative rate of return	100%	90%	15%	138%	164%
10	Revenues	\$ 2,119,128	\$ 1,253,332	\$ 226,452	\$ 268,643	\$ 370,700
11	Test Period Usage (CCF)	12,239,554	2,843,786	587,894	1,463,575	7,344,300
12	Revenue per CCF	\$ 0.1731	\$ 0.4407	\$ 0.3852	\$ 0.1836	\$ 0.0505
13						
14	Revenues at Equalized Rates of Return					
15	Rate of return	7.76%	7.76%	7.76%	7.76%	7.76%
16	Return requirement	506,859	288,866	57,494	90,402	70,097
17	Revenue required	3,176,268	1,844,534	328,004	470,148	533,581
18	Revenue deficiency	1,057,139	591,202	101,552	201,505	162,881
19	Percent increase required	49.9%	47.2%	44.8%	75.0%	43.9%
20	Test Period Usage (CCF)	12,239,554	2,843,786	587,894	1,463,575	7,344,300
21	Revenue Required per CCF	\$ 0.2595	\$ 0.6486	\$ 0.5579	\$ 0.3212	\$ 0.0727
22	Revenue Deficiency per CCF	\$ 0.0864	\$ 0.2079	\$ 0.1727	\$ 0.1377	\$ 0.0222
23						
24	Rate Base/ Revenue Requirements	2.1	2.0	2.3	2.5	1.7
25						
26		<u>Revenue Requirements</u>				
27	Rate Class	Class ROR	Overall ROR			
28						
29	Residential (GR-310)	-1.52%	-1.70%			
30	Small Commercial (GC-320/330)	-0.25%	-1.70%			
31	Medium Commercial (GC-320/330)	-2.35%	-1.70%			
32	Industrial (GC-350/360)	-2.78%	-1.70%			
33						

	A	C	D	E	F	G
34	Liberty Utilities - Iowa		Residential	Commercial	Commercial	Industrial
35	COSS Summary	Total		Small	Medium	-
36		Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
37						
38	Current Rate of Return	-1.70%	-1.52%	-0.25%	-2.35%	-2.78%
39	Proposed Rate of Return	7.76%	7.76%	7.76%	7.76%	7.76%
40						
41	EROR Revenues	\$ 3,176,268	\$ 1,844,534	\$ 328,004	\$ 470,148	\$ 533,581
42	Current Revenues	<u>2,119,128</u>	<u>1,253,332</u>	<u>226,452</u>	<u>268,643</u>	<u>370,700</u>
43						
44	Difference	\$ 1,057,139	\$ 591,202	\$ 101,552	\$ 201,505	\$ 162,881
45	% Difference	49.89%	47.17%	44.84%	75.01%	43.94%
46						
47	Derivation of Delivery Revenues					
48	Current Total Revenues	\$ 2,119,128	1,253,332	226,452	268,643	370,700
49	Less: Other Revenues	24,525	21,751	2,330	421	24
50	Less: Contract	<u>370,422</u>	<u>219,081</u>	<u>39,584</u>	<u>46,959</u>	<u>64,798</u>
51						
52	Current Delivery Revenues	\$ 1,724,182	\$ 1,012,500	\$ 184,539	\$ 221,264	\$ 305,879
53						
54	Total Revenues at EROR	\$ 3,176,268	1,844,534	328,004	470,148	533,581
55	Less: Other Revenues	24,525	21,751	2,330	421	24
56	Less: Contract	<u>370,422</u>	<u>219,081</u>	<u>39,584</u>	<u>46,959</u>	<u>64,798</u>
57						
58	Delivery Revenues at EROR	\$ 2,781,321	\$ 1,603,702	\$ 286,091	\$ 422,768	\$ 468,759

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						
2	Development of Rate of Return		Total	Residential	Commercial	Commercial	Industrial
3			Company	GR-310	Small	Medium	Interruptible
4					GC-320/330(a)	GC-320/330(b)	GC-340/350
5	Rate Base						
6	Gas Plant in Service						
7	- Demand		7,499,305	3,157,664	665,504	1,293,842	2,382,294
8	- Customer		8,284,216	6,430,180	964,672	878,016	11,348
9	- Commodity		-	-	-	-	-
10	Total		15,783,521	9,587,844	1,630,176	2,171,858	2,393,643
11							
12	less: Depreciation & Amortization						
13	- Demand		4,959,784	2,086,886	440,114	856,196	1,576,586
14	- Customer		5,218,619	4,313,570	560,139	336,938	7,972
15	- Commodity		-	-	-	-	-
16	Total		10,178,403	6,400,457	1,000,253	1,193,135	1,584,559
17							
18	Add: CWIP						
19	- Demand		-	-	-	-	-
20	- Customer		-	-	-	-	-
21	- Commodity		-	-	-	-	-
22	Total		-	-	-	-	-
23							
24	Net Utility Plant in Service						
25	- Demand		2,539,521	1,070,778	225,390	437,645	805,708
26	- Customer		3,065,597	2,116,610	404,533	541,078	3,376
27	- Commodity		-	-	-	-	-
28	Total		5,605,118	3,187,388	629,923	978,723	809,084
29							
30	Additions to Rate Base						
31	- Demand		1,172,554	591,996	125,319	230,071	225,167
32	- Customer		775,163	601,931	90,142	81,896	1,194
33	- Commodity		-	-	-	-	-
34	Total		1,947,716	1,193,928	215,461	311,967	226,361
35							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
36	Reductions to Rate Base						
37	- Demand		406,059	170,976	36,035	70,057	128,992
38	- Customer		615,091	487,844	68,447	55,663	3,137
39	- Commodity		-	-	-	-	-
40	Total		1,021,150	658,819	104,481	125,720	132,129
41							
42	Rate Base						
43	- Demand		3,306,016	1,491,799	314,675	597,659	901,883
44	- Customer		3,225,669	2,230,697	426,228	567,310	1,433
45	- Commodity		-	-	-	-	-
46	Total		6,531,685	3,722,496	740,903	1,164,970	903,316
47							
48	Return Calculation						
49	Customer sales		2,094,603	1,231,581	224,123	268,222	370,677
50	Other revenues		24,525	21,751	2,330	421	24
51							
52	Total		2,119,128	1,253,332	226,452	268,643	370,700
53							
54	less:						
55	O&M Expense						
56	- Demand		793,775	299,980	62,365	125,168	306,262
57	- Customer		681,354	531,516	75,881	67,389	6,568
58	- Commodity		-	-	-	-	-
59	Total		1,475,129	831,496	138,247	192,558	312,830
60							
61	Depreciation and Amortization Expense						
62	- Demand		165,953	70,065	14,731	28,569	52,589
63	- Customer		365,572	261,851	46,552	56,818	352
64	- Commodity		-	-	-	-	-
65	Total		531,525	331,916	61,282	85,386	52,941

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
66							
67	Taxes other than income						
68	- Demand		188,733	79,214	16,680	32,447	60,393
69	- Customer		206,706	160,697	23,979	21,678	351
70	- Commodity		-	-	-	-	-
71	Taxes other than income		395,440	239,911	40,659	54,125	60,745
72							
73	Interest on customer deposits		9,873	5,627	1,120	1,761	1,365
74							
75	Income taxes		(182,011)	(99,043)	(13,013)	(37,849)	(32,106)
76	Total Operating Expenses		2,229,956	1,309,906	228,295	295,981	395,774
77							
78	Net Operating Income		(110,828)	(56,574)	(1,843)	(27,337)	(25,074)
79							
80							
81	After Tax Rate of return		-1.70%	-1.52%	-0.25%	-2.35%	-2.78%
82	Relative rate of return		1.000	0.896	0.147	1.383	1.636
83							
84							
85	O&M Expense						
86	- Demand			36%	45%	65%	98%
87	- Customer			64%	55%	35%	2%
88	- Commodity			0%	0%	0%	0%
89	Total			100%	100%	100%	100%
90							
91	Depreciation and Amortization Expense						
92	- Demand			21%	24%	33%	99%
93	- Customer			79%	76%	67%	1%
94	- Commodity			0%	0%	0%	0%
95	Total			100%	100%	100%	100%
96							
97	Taxes other than income						
98	- Demand			33%	41%	60%	99%
99	- Customer			67%	59%	40%	1%
100	- Commodity			0%	0%	0%	0%
101	Taxes other than income			100%	100%	100%	100%

	A	B	C	D	E	F	G
1	<u>Liberty Utilities - Iowa</u>				Commercial	Commercial	Industrial
2	Summary of Rate of Return		Total	Residential	Small	Medium	Interruptible
3			Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
5	Rate Base						
6	Gas Plant in Service		15,783,521	9,587,844	1,630,176	2,171,858	2,393,643
7	less: Depreciation		10,178,403	6,400,457	1,000,253	1,193,135	1,584,559
8	Add: CWIP		-	-	-	-	-
9	Net Utility Plant in Service		5,605,118	3,187,388	629,923	978,723	809,084
10							
11	Add:						
12	Pro Forma Plant Adjustments		1,400,000	850,443	144,597	192,644	212,316
13	Labor		28,450	17,502	2,885	3,743	4,320
14	Gas Storage		467,146	295,641	62,884	108,621	-
15	Prepaid Expenses		21,982	13,353	2,270	3,025	3,334
16	Cash Working Capital		30,138	16,988	2,825	3,934	6,391
17	Total		1,947,716	1,193,928	215,461	311,967	226,361
18							
19	Less:						
20	Accumulated Depreciation Adjustment		(2,078)	(1,262)	(215)	(286)	(315)
21	Accumulated Deferred Income Taxes		856,695	520,407	88,482	117,884	129,922
22	Customer Deposits		139,297	123,539	13,232	2,393	134
23	Reserve for Bad Debt		27,235	16,135	2,982	5,729	2,388
24	Total		1,021,150	658,819	104,481	125,720	132,129
25							
26	Rate Base		6,531,685	3,722,496	740,903	1,164,970	903,316
27							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						Industrial
2	Summary of Rate of Return		Total	Residential	Commercial	Commercial	Interruptible
3			Company	GR-310	Small	Medium	GC-340/350
4					GC-320/330(a)	GC-320/330(b)	
28	Return Calculation						
29	Delivery Revenues		2,094,603	1,231,581	224,123	268,222	370,677
30	Other revenues		24,525	21,751	2,330	421	24
31	Total Revenues		2,119,128	1,253,332	226,452	268,643	370,700
32							
33	less:						
34	O&M Expense		1,475,129	831,496	138,247	192,558	312,830
35	Depreciation and Amortization Expense		531,525	331,916	61,282	85,386	52,941
36	Taxes other than income		395,440	239,911	40,659	54,125	60,745
37	Interest on customer deposits		9,873	5,627	1,120	1,761	1,365
38	Income taxes		(182,011)	(99,043)	(13,013)	(37,849)	(32,106)
39	Total Operating Expenses		2,229,956	1,309,906	228,295	295,981	395,774
40							
41	Net Operating Income		(110,828)	(56,574)	(1,843)	(27,337)	(25,074)
42							
43	Rate of return		-1.70%	-1.52%	-0.25%	-2.35%	-2.78%
44	Relative rate of return		1.000	0.896	0.147	1.383	1.636

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						
2	Summary of Rate of Return						
3			Total	Residential	Commercial	Commercial	Industrial
4			Company	GR-310	Small	Medium	Interruptible
45					GC-320/330(a)	GC-320/330(b)	GC-340/350
46	Derivation of Required Revenues						
47	Net Income after taxes		\$ 506,859	\$ 288,866	\$ 57,494	\$ 90,402	\$ 70,097
48	Add: Income Taxes		257,442	146,720	29,202	45,916	35,604
49	Net income before taxes & interest		\$ 764,301	\$ 435,585	\$ 86,696	\$ 136,318	\$ 105,701
50							
51	Add: O&M		1,475,129	831,496	138,247	192,558	312,830
52	Add: Depreciation		531,525	331,916	61,282	85,386	52,941
53	Add: Taxes other than income		395,440	239,911	40,659	54,125	60,745
54	Add: Interest on customer deposits		9,873	5,627	1,120	1,761	1,365
55							
56	Required Total Revenues		\$ 3,176,268	\$ 1,844,534	\$ 328,004	\$ 470,148	\$ 533,581
57							19.81%
58	Demand-Related						
59	Rate Base		\$ 3,306,016	\$ 1,491,799	\$ 314,675	\$ 597,659	\$ 901,883
60	Net Income after taxes		256,547	115,764	24,419	46,378	69,986
61	Add: Income Taxes		130,304	58,798	12,403	23,556	35,547
62	Net income before taxes & interest		\$ 386,851	\$ 174,562	\$ 36,821	\$ 69,935	\$ 105,533
63							
64	Add: O&M		793,775	299,980	62,365	125,168	306,262
65	Add: Depreciation		165,953	70,065	14,731	28,569	52,589
66	Add: Taxes other than income		188,733	79,214	16,680	32,447	60,393
67							
68							
69	Required Demand Revenues		\$ 1,535,313	\$ 623,820	\$ 130,597	\$ 256,119	\$ 524,777
70							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Summary of Rate of Return	Total	Residential	Small	Medium	Interruptible	
3		Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350	
4							
71		-	Commercial	Commercial	Industrial		
72		Total	Residential	Small	Medium	Interruptible	
73		Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350	
74							
75	Fully Allocated Customer Costs						
76	Rate Base	\$ 3,225,669	\$ 2,230,697	\$ 426,228	\$ 567,310	\$ 1,433	
77	Net Income after taxes	250,312	173,102	33,075	44,023	111	
78	Add: Income Taxes	127,138	87,921	16,799	22,360	56	
79	Net income before taxes & interest	\$ 377,449	\$ 261,023	\$ 49,875	\$ 66,383	\$ 168	
80							
81	Add: O&M	681,354	531,516	75,881	67,389	6,568	
82	Add: Depreciation	365,572	261,851	46,552	56,818	352	
83	Add: Taxes other than income	206,706	160,697	23,979	21,678	351	
84	Add: Interest on deposits	9,873	5,627	1,120	1,761	1,365	
85							
86	Required Customer Revenues	\$ 1,640,955	\$ 1,220,714	\$ 197,407	\$ 214,029	\$ 8,804	
87							
88	Number of Customers	4,155	3,685	395	71	4	
89	Monthly cost per customer	\$ 32.91	\$ 27.61	\$ 41.69	\$ 249.93	\$ 183.42	
90							
91	Required Total Revenues	3,176,268	1,844,534	328,004	470,148	533,581	
92							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						Industrial
2	Summary of Rate of Return		Total	Residential	Commercial	Commercial	Interruptible
3			Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
93	Basic Customer Costs		-	Commercial	Commercial	Industrial	
94			Total	Residential	Small	Medium	Interruptible
95			Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
96							
97	Basic Customer Costs						
98	Plant						
99	380 - Services		3,848,542	3,393,833	374,492	74,102	6,114
100	381 - Meters		1,368,637	881,891	192,866	293,880	-
101	382 - Meter installation		1,686,111	1,086,458	237,604	362,049	-
102	383 - House regulators		133,479	86,008	18,810	28,661	-
103	385 - Industrial Meas & Reg stations		2,210	-	-	-	2,210
104	Total		7,038,979	5,448,190	823,771	758,693	8,325
105							
106	Accumulated Depreciation						
107	380 - Services		3,829,988	3,377,472	372,687	73,745	6,085
108	381 - Meters		(3,414)	(2,200)	(481)	(733)	-
109	382 - Meter installation		1,025,303	660,661	144,484	220,158	-
110	383 - House regulators		69,043	44,488	9,729	14,825	-
111	385 - Industrial Meas & Reg stations		1,223	-	-	-	1,223
112	Total		4,922,142	4,080,421	526,419	307,995	7,308
113							
114	Net income before taxes & interest						
115	Net Plant		2,116,837	1,367,769	297,353	450,698	1,017
116	Net Income after taxes		164,267	\$ 106,139	\$ 23,075	\$ 34,974	\$ 79
117	Add: Income Taxes		83,434	53,910	11,720	17,764	40
118	Net income before taxes & interest		\$ 247,700	\$ 160,049	\$ 34,795	\$ 52,738	\$ 119

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						Industrial
2	Summary of Rate of Return						Interruptible
3							GC-340/350
4							
119							
120	O&M Expenses						
121	874 - Mains & services expense		4,940	2,648	449	664	1,180
122	876 - Measurement & Reg - Industrial		-	-	-	-	-
123	878 - Meter and House Regulator		59,426	38,292	8,374	12,760	-
124	879 - Customer installation		-	-	-	-	-
125	902 - Meter reading expense		8,409	7,458	799	144	8
126	903 - Customer records & collections		171,687	152,265	16,308	2,949	165
127	909 - Info & Inst Advertising		4,037	3,580	383	69	4
128	913 - Advertising		710	630	67	12	1
129	916 - Misc Sales Expense		-	-	-	-	-
130	Total		249,211	204,872	26,381	16,599	1,358
131							
132	Depreciation Expense						
133	380 - Services		55,907	49,301	5,440	1,076	89
134	381 - Meters		156,306	100,717	22,026	33,563	-
135	382 - Meter installation		61,450	39,595	8,659	13,195	-
136	383 - House regulators		2,607	1,680	367	560	-
137	385 - Industrial Meas & Reg stations		33	-	-	-	33
138			276,303	191,294	36,493	48,394	121
139							
140	Basic customer-related costs		773,214	\$ 556,215	\$ 97,669	\$ 117,731	\$ 1,598
141	Number of customers		4,155	3,685	395	71	4
142	Monthly basic cost per customer		\$ 15.51	\$ 12.58	\$ 20.62	\$ 137.48	\$ 33.30

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Income Taxes		Total	Residential	Small	Medium	Interruptible
3	Allocator		Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
5	Income Tax Calculation						
6	Operating Revenues		2,119,128	1,253,332	226,452	268,643	370,700
7							
8	Operating Expenses						
9	O&M expenses		1,475,129	831,496	138,247	192,558	312,830
10	Depreciation & Amortization		531,525	331,916	61,282	85,386	52,941
11	Taxes Other Than Income		395,440	239,911	40,659	54,125	60,745
12	Interest on Customer Deposits	Rate Base_Total	9,873	5,627	1,120	1,761	1,365
13	Total Expenses excl. Income Taxes		2,411,967	1,408,949	241,308	333,830	427,880
14							
15	Net Income before Taxes & Interest		(292,839)	(155,617)	(14,856)	(65,186)	(57,180)
16							
17	Less:						
18	Interest expense	Rate Base_Total	145,003	82,639	16,448	25,862	20,054
19							
20	Net income before taxes		(437,842)	(238,256)	(31,304)	(91,049)	(77,233)
21							
22	State taxable income		(437,842)	(238,256)	(31,304)	(91,049)	(77,233)
23	State Income Tax	12.00%	(52,541)	(28,591)	(3,756)	(10,926)	(9,268)
24							
25	Federal taxable income		(385,301)	(209,666)	(27,547)	(80,123)	(67,965)
26	Federal Income Tax	35.00%	(134,855)	(73,383)	(9,642)	(28,043)	(23,788)
27							
28	Total Income Tax		(187,396)	(101,974)	(13,398)	(38,969)	(33,056)
29							
30							
31	State Income Tax		(52,541)	(28,591)	(3,756)	(10,926)	(9,268)
32	Federal Income Tax		(134,855)	(73,383)	(9,642)	(28,043)	(23,788)
33	Total Income Tax		(187,396)	(101,974)	(13,398)	(38,969)	(33,056)
34							
35	Actual Income Taxes		(182,011)	(99,043)	(13,013)	(37,849)	(32,106)

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Taxes Other Than Income		Total	Residential	Small	Medium	Interruptible
3		Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
5	Property Taxes		<u>349,824</u>				
6	- Demand	Plant_Total_D	166,214	69,986	14,750	28,677	52,801
7	- Customer	Plant_Total_C	183,610	142,518	21,381	19,460	252
8	- Commodity	Plant_Total_E	-	-	-	-	-
9	Total		<u>349,824</u>	<u>212,504</u>	<u>36,131</u>	<u>48,137</u>	<u>53,052</u>
10							
11	Medicare		<u>5,385</u>				
12	- Demand	Labor_total_D	2,566	1,087	228	440	811
13	- Customer	Labor_total_C	2,819	2,226	318	268	7
14	- Commodity	Labor_total_E	-	-	-	-	-
15	Total		<u>5,385</u>	<u>3,313</u>	<u>546</u>	<u>708</u>	<u>818</u>
16							
17	Unemployment Tax		<u>4,483</u>				
18	- Demand	Labor_total_D	2,136	905	190	367	675
19	- Customer	Labor_total_C	2,347	1,853	265	223	6
20	- Commodity	Labor_total_E	-	-	-	-	-
21	Total		<u>4,483</u>	<u>2,758</u>	<u>455</u>	<u>590</u>	<u>681</u>
22							
23	FICA		<u>23,026</u>				
24	- Demand	Labor_total_D	10,972	4,648	974	1,883	3,466
25	- Customer	Labor_total_C	12,054	9,517	1,361	1,146	30
26	- Commodity	Labor_total_E	-	-	-	-	-
27	Total		<u>23,026</u>	<u>14,165</u>	<u>2,335</u>	<u>3,029</u>	<u>3,496</u>
28							
29	Miscellaneous		<u>12,722</u>				
30	- Demand	EXP_Total_D	6,846	2,587	538	1,079	2,641
31	- Customer	EXP_Total_C	5,876	4,584	654	581	57
32	- Commodity	EXP_Total_E	-	-	-	-	-
33	Total		<u>12,722</u>	<u>7,171</u>	<u>1,192</u>	<u>1,661</u>	<u>2,698</u>
34							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
35	Total Taxes Other Than Income						
36	- Demand		188,733	79,214	16,680	32,447	60,393
37	- Customer		206,706	160,697	23,979	21,678	351
38	- Commodity		-	-	-	-	-
39	Total		395,440	239,911	40,659	54,125	60,745

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Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of O&M Expenses		Total	Residential	Small	Medium	Interruptible
3		Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
5	Production Expense						
6	717 - LPG Expense Maintenance		-				
7	- Demand		-				
8	- Customer		-				
9	- Commodity		-				
10	Total		-	-	-	-	-
11							
12	742 - Maintenance of production equip		-				
13	- Demand		-				
14	- Customer		-				
15	- Commodity		-				
16	Total		-	-	-	-	-
17							
18	804 - Natural Gas City Gate Purchases		-				
19	- Demand		-				
20	- Customer		-				
21	- Commodity		-				
22	Total		-	-	-	-	-
23							
24	Total Production Expenses						
25	- Demand		-	-	-	-	-
26	- Customer		-	-	-	-	-
27	- Commodity		-	-	-	-	-
28	Total		-	-	-	-	-
29							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						
2	Allocation of O&M Expenses		Total	Residential	Commercial	Commercial	Industrial
3	Allocator		Company	GR-310	Small	Medium	Interruptible
4							
30	Transmission Expenses						
31	Operations Expenses						
32							
33	850 - Supervision & Engineering		-				
34	- Demand		-				
35	- Customer		-				
36	- Commodity		-				
37	Total		-	-	-	-	-
38							
39	851 - Load Dispatching		-				
40	- Demand		-				
41	- Customer		-				
42	- Commodity		-				
43	Total		-	-	-	-	-
44							
45	852 - Communication System Expenses		-				
46	- Demand		-				
47	- Customer		-				
48	- Commodity		-				
49	Total		-	-	-	-	-
50							
51	856 - Mains Expenses		-				
52	- Demand		-				
53	- Customer		-				
54	- Commodity		-				
55	Total		-	-	-	-	-
56							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of O&M Expenses		Total	Residential	Small	Medium	Interruptible
3		Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
57	857 - Measuring and Regulating Expenses		-				
58	- Demand		-				
59	- Customer		-				
60	- Commodity		-				
61	Total		-	-	-	-	-
62							
63	858 - Transmission & Compression by other		-				
64	- Demand		-				
65	- Customer		-				
66	- Commodity		-				
67	Total		-	-	-	-	-
68							
69	859 - Other expenses		-				
70	- Demand		-				
71	- Customer		-				
72	- Commodity		-				
73	Total		-	-	-	-	-
74							
75	860 - Rents		-				
76	- Demand		-				
77	- Customer		-				
78	- Commodity		-				
79	Total		-	-	-	-	-
80							
81	Total Operations Expense						
82	- Demand		-	-	-	-	-
83	- Customer		-	-	-	-	-
84	- Commodity		-	-	-	-	-
85	Total		-	-	-	-	-
86							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of O&M Expenses		Total	Residential	Small	Medium	Interruptible
3		Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
87	Maintenance Expense						
88	861 - Supervision		-				
89	- Demand		-				
90	- Customer		-				
91	- Commodity		-				
92	Total		-	-	-	-	-
93							
94	862 - Maintenance Structure & Improve		-				
95	- Demand		-				
96	- Customer		-				
97	- Commodity		-				
98	Total		-	-	-	-	-
99							
100	863 - Maintenance of Mains		-				
101	- Demand		-				
102	- Customer		-				
103	- Commodity		-				
104	Total		-	-	-	-	-
105							
106	864 - Maintenance of Compressor Station		-				
107	- Demand		-				
108	- Customer		-				
109	- Commodity		-				
110	Total		-	-	-	-	-
111							
112	865 - Maintenance of M&R station		-				
113	- Demand		-				
114	- Customer		-				
115	- Commodity		-				
116	Total		-	-	-	-	-
117							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						
2	Allocation of O&M Expenses		Total	Residential	Commercial	Commercial	Industrial
3	Allocator		Company	GR-310	Small	Medium	Interruptible
4					GC-320/330(a)	GC-320/330(b)	GC-340/350
118	<u>866 - Maintenance of Communication Equipment</u>		-				
119	- Demand		-				
120	- Customer		-				
121	- Commodity		-				
122	Total		-	-	-	-	-
123							
124	<u>867 - Maintenance of Other Equipment</u>		-				
125	- Demand		-				
126	- Customer		-				
127	- Commodity		-				
128	Total		-	-	-	-	-
129							
130	<u>Total Maintenance Expense</u>						
131	- Demand		-	-	-	-	-
132	- Customer		-	-	-	-	-
133	- Commodity		-	-	-	-	-
134	Total		-	-	-	-	-
135							
136	<u>Total Transmission Expenses</u>						
137	- Demand		-	-	-	-	-
138	- Customer		-	-	-	-	-
139	- Commodity		-	-	-	-	-
140	Total		-	-	-	-	-
141							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of O&M Expenses		Total	Residential	Small	Medium	Interruptible
3		Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
142	Distribution Expenses						
143	Operations Expenses						
144							
145	870 - Supervision & Engineering		33,722				
146	- Demand	EXP_871-880_D	26,571	11,227	2,359	4,571	8,414
147	- Customer	EXP_871-880_C	7,151	4,592	1,000	1,524	35
148	- Commodity	EXP_871-880_E	-	-	-	-	-
149	Total		33,722	15,819	3,359	6,095	8,449
150							
151	871 - Distribution Load Dispatching		1,111				
152	- Demand	D2_peak&average	1,111	467	99	192	353
153	- Customer		-				
154	- Commodity		-				
155	Total		1,111	467	99	192	353
156							
157	872 - Compressor Station Labor and Expenses		220,567				
158	- Demand	D2_peak&average	220,567	92,777	19,572	38,086	70,132
159	- Customer		-				
160	- Commodity		-				
161	Total		220,567	92,777	19,572	38,086	70,132
162							
163	874 - Mains & services expense		4,940				
164	- Demand	C6_mains&services	3,705	1,986	337	498	885
165	- Customer	C6_mains&services	1,235	662	112	166	295
166	- Commodity		-				
167	Total		4,940	2,648	449	664	1,180
168							

	A	B	C	D	E	F	G
1	<u>Liberty Utilities - Iowa</u>				Commercial	Commercial	Industrial
2	Allocation of O&M Expenses		Total	Residential	Small	Medium	Interruptible
3		Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
169	875 - Measurement & Reg - General		-				
170	- Demand		-				
171	- Customer		-				
172	- Commodity		-				
173	Total		-	-	-	-	-
174							
175	876 - Measurement & Reg - Industrial		-				
176	- Demand		-				
177	- Customer		-				
178	- Commodity		-				
179	Total		-	-	-	-	-
180							
181	877 - Measurement & Reg - City Gate		-				
182	- Demand		-				
183	- Customer		-				
184	- Commodity		-				
185	Total		-	-	-	-	-
186							
187	878 - Meter and House Regulator		59,426				
188	- Demand		-				
189	- Customer	C3_meters	59,426	38,292	8,374	12,760	-
190	- Commodity		-				
191	Total		59,426	38,292	8,374	12,760	-
192							
193	879 - Customer installation		-				
194	- Demand		-				
195	- Customer		-				
196	- Commodity		-				
197	Total		-	-	-	-	-
198							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of O&M Expenses		Total	Residential	Small	Medium	Interruptible
3		Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
199	880 - Other expenses		-				
200	- Demand		-				
201	- Customer		-				
202	- Commodity		-				
203	Total		-	-	-	-	-
204							
205	881 - Rents		-				
206	- Demand		-				
207	- Customer		-				
208	- Commodity		-				
209	Total		-	-	-	-	-
210							
211	Total Operations Expenses						
212	- Demand		251,954	106,457	22,366	43,346	79,785
213	- Customer		67,813	43,546	9,487	14,450	330
214	- Commodity		-	-	-	-	-
215	Total		319,767	150,003	31,853	57,797	80,115
216							
217	Maintenance Expense						
218	885 - Supervision		-				
219	- Demand		-				
220	- Customer		-				
221	- Commodity		-				
222	Total		-	-	-	-	-
223							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						
2	Allocation of O&M Expenses		Total	Residential	Commercial	Commercial	Industrial
3	Allocator		Company	GR-310	Small	Medium	Interruptible
4					GC-320/330(a)	GC-320/330(b)	GC-340/350
224	<u>886 - Maintenance Structure & Improve</u>		-				
225	- Demand		-				
226	- Customer		-				
227	- Commodity		-				
228	Total		-	-	-	-	-
229							
230	<u>887 - Maintenance of Mains</u>		62				
231	- Demand		62	26	6	11	20
232	- Customer		-				
233	- Commodity		-				
234	Total		62	26	6	11	20
235							
236	<u>889 - Maintenance of M&R station - General</u>		-				
237	- Demand		-				
238	- Customer		-				
239	- Commodity		-				
240	Total		-	-	-	-	-
241							
242	<u>890 - Maintenance of M&R station - Industrial</u>		-				
243	- Demand		-				
244	- Customer		-				
245	- Commodity		-				
246	Total		-	-	-	-	-
247							
248	<u>891 - Maintenance of M&R station - City Gate</u>		-				
249	- Demand		-				
250	- Customer		-				
251	- Commodity		-				
252	Total		-	-	-	-	-
253							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of O&M Expenses		Total	Residential	Small	Medium	Interruptible
3		Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
254	892 - Maintenance of Services		5,859				
255	- Demand	C5_services	5,859	5,166	570	113	9
256	- Customer		-				
257	- Commodity		-				
258	Total		5,859	5,166	570	113	9
259							
260	893 - Maintenance of Meter and House Reg		910				
261	- Demand	C3_meters	910	587	128	195	-
262	- Customer		-				
263	- Commodity		-				
264	Total		910	587	128	195	-
265							
266	894 - Maintenance of Other Equipment		-				
267	- Demand		-				
268	- Customer		-				
269	- Commodity		-				
270	Total		-	-	-	-	-
271							
272	Total Maintenance Expense						
273	- Demand		6,831	5,779	704	319	29
274	- Customer		-	-	-	-	-
275	- Commodity		-	-	-	-	-
276	Total		6,831	5,779	704	319	29
277							
278	Total Distribution Expenses						
279	- Demand		258,785	112,236	23,070	43,665	79,814
280	- Customer		67,813	43,546	9,487	14,450	330
281	- Commodity		-	-	-	-	-
282	Total		326,598	155,782	32,557	58,116	80,144
283							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						
2	Allocation of O&M Expenses		Total	Residential	Commercial	Commercial	Industrial
3	Allocator		Company	GR-310	Small	Medium	Interruptible
4					GC-320/330(a)	GC-320/330(b)	GC-340/350
284	Customer Service Expense						
285	901 - Supervision		-				
286	- Demand		-				
287	- Customer		-				
288	- Commodity		-				
289	Total		-	-	-	-	-
290							
291	902 - Meter reading expense		8,409				
292	- Demand		-				
293	- Customer		8,409	7,458	799	144	8
294	- Commodity		-				
295	Total		8,409	7,458	799	144	8
296							
297	903 - Customer records & collections		171,687				
298	- Demand		-				
299	- Customer		171,687	152,265	16,308	2,949	165
300	- Commodity		-				
301	Total		171,687	152,265	16,308	2,949	165
302							
303	904 - Uncollectible expense		60,941				
304	- Demand		-				
305	- Customer		60,941	36,105	6,672	12,820	5,344
306	- Commodity		-				
307	Total		60,941	36,105	6,672	12,820	5,344
308							

	A	B	C	D	E	F	G
1	<u>Liberty Utilities - Iowa</u>				Commercial	Commercial	Industrial
2	Allocation of O&M Expenses		Total	Residential	Small	Medium	Interruptible
3		Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
309	905 - Miscellaneous Customer Service		-				
310	- Demand		-				
311	- Customer		-				
312	- Commodity		-				
313	Total		-	-	-	-	-
314							
315	909 - Info & Inst Advertising		4,037				
316	- Demand		-				
317	- Customer	C1_customers	4,037	3,580	383	69	4
318	- Commodity		-				
319	Total		4,037	3,580	383	69	4
320							
321	Total Customer Service Expenses						
322	- Demand		-	-	-	-	-
323	- Customer		245,075	199,408	24,162	15,983	5,522
324	- Commodity		-	-	-	-	-
325	Total		245,075	199,408	24,162	15,983	5,522
326							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of O&M Expenses		Total	Residential	Small	Medium	Interruptible
3		Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
327	Sales Expense						
328	912 - Demonstration and selling		-				
329	- Demand		-				
330	- Customer		-				
331	- Commodity		-				
332	Total		-	-	-	-	-
333							
334	913 - Advertising		710				
335	- Demand		-				
336	- Customer	C1_customers	710	630	67	12	1
337	- Commodity		-				
338	Total		710	630	67	12	1
339							
340	916 - Misc Sales Expense		-				
341	- Demand		-				
342	- Customer		-				
343	- Commodity		-				
344	Total		-	-	-	-	-
345							
346	Total Sales Expense						
347	- Demand		-	-	-	-	-
348	- Customer		710	630	67	12	1
349	- Commodity		-	-	-	-	-
350	Total		710	630	67	12	1
351							

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of O&M Expenses		Total	Residential	Small	Medium	Interruptible
3		Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
352	Administrative & General Expense						
353	Operations						
354	920 - A&G Salaries		134,598				
355	- Demand	Labor_total_D	64,137	27,172	5,695	11,010	20,260
356	- Customer	Labor_total_C	70,462	55,632	7,955	6,698	177
357	- Commodity	Labor_total_E	-	-	-	-	-
358	Total		134,598	82,804	13,650	17,708	20,436
359							
360	921 - Office supplies		94,559				
361	- Demand	Labor_total_D	45,058	19,089	4,001	7,735	14,233
362	- Customer	Labor_total_C	49,502	39,083	5,589	4,706	124
363	- Commodity	Labor_total_E	-	-	-	-	-
364	Total		94,559	58,172	9,590	12,440	14,357
365							
366	922 - Administrative Expense Transfer		(45,174)				
367	- Demand	Labor_total_D	(21,525)	(9,120)	(1,911)	(3,695)	(6,799)
368	- Customer	Labor_total_C	(23,648)	(18,671)	(2,670)	(2,248)	(59)
369	- Commodity	Labor_total_E	-	-	-	-	-
370	Total		(45,174)	(27,791)	(4,581)	(5,943)	(6,859)
371							
372	923 - Outside services employed		272,570				
373	- Demand	Plant_Total_D	129,508	54,531	11,493	22,344	41,141
374	- Customer	Plant_Total_C	143,062	111,045	16,659	15,163	196
375	- Commodity	Plant_Total_E	-	-	-	-	-
376	Total		272,570	165,575	28,152	37,506	41,336
377							

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of O&M Expenses		Total	Residential	Small	Medium	Interruptible
3		Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
378	924 - Property insurance		19,297				
379	- Demand	Plant_Total_D	9,169	3,861	814	1,582	2,913
380	- Customer	Plant_Total_C	10,128	7,861	1,179	1,073	14
381	- Commodity	Plant_Total_E	-	-	-	-	-
382	Total		19,297	11,722	1,993	2,655	2,926
383							
384	925 - Injuries and damages		-				
385	- Demand		-				
386	- Customer		-				
387	- Commodity		-				
388	Total		-	-	-	-	-
389							
390	926 - Employed pensions & benefits		161,743				
391	- Demand	Labor_total_D	77,071	32,652	6,843	13,230	24,345
392	- Customer	Labor_total_C	84,672	66,851	9,560	8,049	212
393	- Commodity	Labor_total_E	-	-	-	-	-
394	Total		161,743	99,503	16,403	21,279	24,558
395							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of O&M Expenses		Total	Residential	Small	Medium	Interruptible
3		Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
396	928 - Regulatory commission expense		201,152				
397	- Demand	D7_throughput	201,152	46,736	9,662	24,053	120,700
398	- Customer		-				
399	- Commodity		-				
400	Total		201,152	46,736	9,662	24,053	120,700
401							
402	930.01 - General advertising		-				
403	- Demand		-				
404	- Customer		-				
405	- Commodity		-				
406	Total		-	-	-	-	-
407							
408	930.02 - Misc. General expense		9,730				
409	- Demand	Labor_total_D	4,636	1,964	412	796	1,465
410	- Customer	Labor_total_C	5,094	4,022	575	484	13
411	- Commodity	Labor_total_E	-	-	-	-	-
412	Total		9,730	5,986	987	1,280	1,477
413							
414	931 - Rents		54,270				
415	- Demand	Plant_Total_D	25,786	10,857	2,288	4,449	8,191
416	- Customer	Plant_Total_C	28,485	22,110	3,317	3,019	39
417	- Commodity	Plant_Total_E	-	-	-	-	-
418	Total		54,270	32,967	5,605	7,468	8,230
419							
420	Total Operations Expenses						
421	- Demand		534,990	187,744	39,296	81,503	226,448
422	- Customer		367,756	287,932	42,165	36,944	716
423	- Commodity		-	-	-	-	-
424	Total		902,746	475,676	81,460	118,447	227,163
425							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of O&M Expenses		Total	Residential	Small	Medium	Interruptible
3		Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
426	Maintenance						
427	932 - Maintenance of general plant		-				
428	- Demand		-				
429	- Customer		-				
430	- Commodity		-				
431	Total		-	-	-	-	-
432							
433	Total A&G Expense						
434	- Demand		534,990	187,744	39,296	81,503	226,448
435	- Customer		367,756	287,932	42,165	36,944	716
436	- Commodity		-	-	-	-	-
437	Total		902,746	475,676	81,460	118,447	227,163
438							
439	Total O&M Expense						
440	- Demand		793,775	299,980	62,365	125,168	306,262
441	- Customer		681,354	531,516	75,881	67,389	6,568
442	- Commodity		-	-	-	-	-
443	Total		1,475,129	831,496	138,247	192,558	312,830
444							
445	Demand		53.81%	20.34%	4.23%	8.49%	20.76%
446	Customer		46.19%	36.03%	5.14%	4.57%	0.45%
447	Commodity		0.00%	0.00%	0.00%	0.00%	0.00%
448	Total		100.00%	56.37%	9.37%	13.05%	21.21%
449							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of O&M Expenses		Total	Residential	Small	Medium	Interruptible
3	Allocator		Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
450	Total Expenses						
451	Purchased Gas		-	-	-	-	-
452	Transmission		-	-	-	-	-
453	Distribution		326,598	155,782	32,557	58,116	80,144
454	Customer Service		245,075	199,408	24,162	15,983	5,522
455	Sales		710	630	67	12	1
456	A&G		902,746	475,676	81,460	118,447	227,163
457							
458	Total		1,475,129	831,496	138,247	192,558	312,830
459							
460	Expenses 871-880						
461	EXP_871-880_D		225,383	95,230	20,007	38,775	71,371
462	EXP_871-880_C		60,662	38,954	8,487	12,926	295
463	EXP_871-880_E		-	-	-	-	-
464	Total		286,045	134,184	28,494	51,701	71,666
465							
466	EXP_871-880_D		78.79%	33.29%	6.99%	13.56%	24.95%
467	EXP_871-880_C		21.21%	13.62%	2.97%	4.52%	0.10%
468	EXP_871-880_E		0.00%	0.00%	0.00%	0.00%	0.00%
469	Total		100.00%	46.91%	9.96%	18.07%	25.05%

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Depreciation and		Total	Residential	Small	Medium	Interruptible
3	Amortization Expenses	Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
5	Intangible Plant						
6	301 - Organization Costs		-				
7	- Demand		-				
8	- Customer		-				
9	- Commodity		-				
10	Total		-	-	-	-	-
11							
12	302 - Franchise and Consents		-				
13	- Demand		-				
14	- Customer		-				
15	- Commodity		-				
16	Total		-	-	-	-	-
17							
18	303 - Misc. Intangible Plant		(7,438)				
19	- Demand	Plant_P/T/D_D	(3,532)	(1,486)	(313)	(610)	(1,123)
20	- Customer	Plant_P/T/D_C	(3,906)	(3,023)	(457)	(421)	(5)
21	- Commodity	Plant_P/T/D_E	-	-	-	-	-
22	Total		(7,438)	(4,509)	(771)	(1,031)	(1,128)
23							
24	Total Intangible Plant						
25	- Demand		(3,532)	(1,486)	(313)	(610)	(1,123)
26	- Customer		(3,906)	(3,023)	(457)	(421)	(5)
27	- Commodity		-	-	-	-	-
28	Total		(7,438)	(4,509)	(771)	(1,031)	(1,128)
29							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Depreciation and		Total	Residential	Small	Medium	Interruptible
3	Amortization Expenses	Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
30	Production Plant Expense						
31	304 - Land & land rights		-				
32	- Demand		-				
33	- Customer		-				
34	- Commodity		-				
35	Total		-	-	-	-	-
36							
37	305 - Structures & improvements		-				
38	- Demand		-				
39	- Customer		-				
40	- Commodity		-				
41	Total		-	-	-	-	-
42							
43	311 - LPG equipment		-				
44	- Demand		-				
45	- Customer		-				
46	- Commodity		-				
47	Total		-	-	-	-	-
48							
49	325.4 - Rights of way		-				
50	- Demand		-				
51	- Customer		-				
52	- Commodity		-				
53	Total		-	-	-	-	-
54							
55	Total Production Plant						
56	- Demand		-	-	-	-	-
57	- Customer		-	-	-	-	-
58	- Commodity		-	-	-	-	-
59	Total		-	-	-	-	-
60							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Depreciation and		Total	Residential	Small	Medium	Interruptible
3	Amortization Expenses	Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
61	Transmission Plant						
62	365.0 - T&D: Land and Land Rights		-				
63	- Demand		-				
64	- Customer		-				
65	- Commodity		-				
66	Total		-	-	-	-	-
67							
68	365.1 - Land and Land Rights		-				
69	- Demand		-				
70	- Customer		-				
71	- Commodity		-				
72	Total		-	-	-	-	-
73							
74	365.2 - Rights-of-Way		-				
75	- Demand		-				
76	- Customer		-				
77	- Commodity		-				
78	Total		-	-	-	-	-
79							
80	366.1 - Compressor station structures		878				
81	- Demand	D2_peak&average	878	369	78	152	279
82	- Customer		-				
83	- Commodity		-				
84	Total		878	369	78	152	279
85							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						
2	Allocation of Depreciation and		Total	Residential	Commercial	Commercial	Industrial
3	Amortization Expenses	Allocator	Company	GR-310	Small	Medium	Interruptible
4					GC-320/330(a)	GC-320/330(b)	GC-340/350
86	367.1 - Mains		19,821				
87	- Demand	D2_peak&average	19,821	8,337	1,759	3,423	6,302
88	- Customer		-				
89	- Commodity		-				
90	Total		19,821	8,337	1,759	3,423	6,302
91							
92	368 - Compressor Station Equipment		-				
93	- Demand		-				
94	- Customer		-				
95	- Commodity		-				
96	Total		-	-	-	-	-
97							
98	369 - Measuring and Reg. Sta. Equipment		5,639				
99	- Demand	D2_peak&average	5,639	2,372	500	974	1,793
100	- Customer		-				
101	- Commodity		-				
102	Total		5,639	2,372	500	974	1,793
103							
104	370 - Communication Equipment		-				
105	- Demand		-				
106	- Customer		-				
107	- Commodity		-				
108	Total		-	-	-	-	-
109							
110	371 - Other equipment		-				
111	- Demand		-				
112	- Customer		-				
113	- Commodity		-				
114	Total		-	-	-	-	-
115							

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Depreciation and		Total	Residential	Small	Medium	Interruptible
3	Amortization Expenses	Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
116	Total Transmission Plant						
117	- Demand		26,338	11,079	2,337	4,548	8,375
118	- Customer		-	-	-	-	-
119	- Commodity		-	-	-	-	-
120	Total		26,338	11,079	2,337	4,548	8,375
121							
122	Distribution Expense						
123	374 - Land and land rights		-				
124	- Demand		-				
125	- Customer		-				
126	- Commodity		-				
127	Total		-	-	-	-	-
128							
129	374.2 - T&D: Land and land rights		133				
130	- Demand	Plant_375-386_D	54	23	5	9	17
131	- Customer	Plant_375-386_C	79	61	9	9	0
132	- Commodity	Plant_375-386_E	-	-	-	-	-
133	Total		133	84	14	18	17
134							
135	375 - Structures and improvements		12				
136	- Demand	D2_peak&average	12	5	1	2	4
137	- Customer		-				
138	- Commodity		-				
139	Total		12	5	1	2	4
140							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Depreciation and		Total	Residential	Small	Medium	Interruptible
3	Amortization Expenses		Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4	Allocator						
141	376 - Mains		2,867				
142	- Demand	D2_peak&average	2,867	1,206	254	495	912
143	- Customer		-				
144	- Commodity		-				
145	Total		2,867	1,206	254	495	912
146							
147	376.1 - Mains steel		-				
148	- Demand		-				
149	- Customer		-				
150	- Commodity		-				
151	Total		-	-	-	-	-
152							
153	376.2 - Mains plastic		26,267				
154	- Demand	D2_peak&average	26,267	11,049	2,331	4,536	8,352
155	- Customer		-				
156	- Commodity		-				
157	Total		26,267	11,049	2,331	4,536	8,352
158							
159	377 - Compressor station equipment		-				
160	- Demand		-				
161	- Customer		-				
162	- Commodity		-				
163	Total		-	-	-	-	-
164							
165	378 - Measurement & equip: Gen		24,104				
166	- Demand	D2_peak&average	24,104	10,139	2,139	4,162	7,664
167	- Customer		-				
168	- Commodity		-				
169	Total		24,104	10,139	2,139	4,162	7,664
170							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						
2	Allocation of Depreciation and		Total	Residential	Commercial	Commercial	Industrial
3	Amortization Expenses	Allocator	Company	GR-310	Small	Medium	Interruptible
4					GC-320/330(a)	GC-320/330(b)	GC-340/350
171	379 - Measurement & equip: CG		<u>4,679</u>				
172	- Demand	D2_peak&average	4,679	1,968	415	808	1,488
173	- Customer		-				
174	- Commodity		-				
175	Total		<u>4,679</u>	<u>1,968</u>	<u>415</u>	<u>808</u>	<u>1,488</u>
176							
177	380 - Services		<u>55,907</u>				
178	- Demand		-				
179	- Customer	C5_services	55,907	49,301	5,440	1,076	89
180	- Commodity		-				
181	Total		<u>55,907</u>	<u>49,301</u>	<u>5,440</u>	<u>1,076</u>	<u>89</u>
182							
183	381 - Meters		<u>156,306</u>				
184	- Demand		-				
185	- Customer	C3_meters	156,306	100,717	22,026	33,563	-
186	- Commodity		-				
187	Total		<u>156,306</u>	<u>100,717</u>	<u>22,026</u>	<u>33,563</u>	<u>-</u>
188							
189	382 - Meter installation		<u>61,450</u>				
190	- Demand		-				
191	- Customer	C3_meters	61,450	39,595	8,659	13,195	-
192	- Commodity		-				
193	Total		<u>61,450</u>	<u>39,595</u>	<u>8,659</u>	<u>13,195</u>	<u>-</u>
194							
195	383 - House regulators		<u>2,607</u>				
196	- Demand		-				
197	- Customer	C3_meters	2,607	1,680	367	560	-
198	- Commodity		-				
199	Total		<u>2,607</u>	<u>1,680</u>	<u>367</u>	<u>560</u>	<u>-</u>
200							

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	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Depreciation and		Total	Residential	Small	Medium	Interruptible
3	Amortization Expenses	Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
201	384 - House regulators Installations		-				
202	- Demand		-				
203	- Customer		-				
204	- Commodity		-				
205	Total		-	-	-	-	-
206							
207	385 - Industrial Meas & Reg stations		33				
208	- Demand		-				
209	- Customer	C4_industrialmeters	33	-	-	-	33
210	- Commodity		-				
211	Total		33	-	-	-	33
212							
213	386 - Other property on customer premises		-				
214	- Demand		-				
215	- Customer		-				
216	- Commodity		-				
217	Total		-	-	-	-	-
218							
219	387 - Other distribution equip.		(3,152)				
220	- Demand	Plant_375-386_D	(1,276)	(537)	(113)	(220)	(406)
221	- Customer	Plant_375-386_C	(1,875)	(1,451)	(219)	(202)	(2)
222	- Commodity	Plant_375-386_E	-	-	-	-	-
223	Total		(3,152)	(1,988)	(333)	(423)	(408)
224							
225	Total Distribution Plant						
226	- Demand		56,707	23,852	5,032	9,792	18,031
227	- Customer		274,507	189,904	36,283	48,200	119
228	- Commodity		-	-	-	-	-
229	Total		331,213	213,756	41,315	57,992	18,150
230							

Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities

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	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Depreciation and		Total	Residential	Small	Medium	Interruptible
3	Amortization Expenses	Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
231	General Plant Expense						
232	389 - Land & land rights		-				
233	- Demand		-				
234	- Customer		-				
235	- Commodity		-				
236	Total		-	-	-	-	-
237							
238	390 - Structures & improvements		3,973				
239	- Demand	Labor_total_D	1,893	802	168	325	598
240	- Customer	Labor_total_C	2,080	1,642	235	198	5
241	- Commodity	Labor_total_E	-	-	-	-	-
242	Total		3,973	2,444	403	523	603
243							
244	390.2 - General Improvements		178				
245	- Demand	Labor_total_D	85	36	8	15	27
246	- Customer	Labor_total_C	93	74	11	9	0
247	- Commodity	Labor_total_E	-	-	-	-	-
248	Total		178	110	18	23	27
249							
250	391 - Office Furniture and Equipment		16,137				
251	- Demand	Labor_total_D	7,689	3,258	683	1,320	2,429
252	- Customer	Labor_total_C	8,448	6,670	954	803	21
253	- Commodity	Labor_total_E	-	-	-	-	-
254	Total		16,137	9,928	1,637	2,123	2,450
255							
256	392 - Transportation equip		(947)				
257	- Demand	Labor_total_D	(451)	(191)	(40)	(77)	(142)
258	- Customer	Labor_total_C	(496)	(391)	(56)	(47)	(1)
259	- Commodity	Labor_total_E	-	-	-	-	-
260	Total		(947)	(582)	(96)	(125)	(144)
261							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Depreciation and		Total	Residential	Small	Medium	Interruptible
3	Amortization Expenses		Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4	Allocator						
262	392.1 - Transportation equip < 12 Lbs.		(25,878)				
263	- Demand	Labor_total_D	(12,331)	(5,224)	(1,095)	(2,117)	(3,895)
264	- Customer	Labor_total_C	(13,547)	(10,696)	(1,530)	(1,288)	(34)
265	- Commodity	Labor_total_E	-	-	-	-	-
266	Total		(25,878)	(15,920)	(2,624)	(3,405)	(3,929)
267							
268	393 - Stores Equipment		-				
269	- Demand		-				
270	- Customer		-				
271	- Commodity		-				
272	Total		-	-	-	-	-
273							
274	394 - Tools, shop and garage equip		1,551				
275	- Demand	Plant_P/T/D_D	736	310	65	127	234
276	- Customer	Plant_P/T/D_C	814	630	95	88	1
277	- Commodity	Plant_P/T/D_E	-	-	-	-	-
278	Total		1,551	940	161	215	235
279							
280	395 - Laboratory Equipment		-				
281	- Demand		-				
282	- Customer		-				
283	- Commodity		-				
284	Total		-	-	-	-	-
285							
286	396 - Power operated equip		2,397				
287	- Demand	Labor_total_D	1,142	484	101	196	361
288	- Customer	Labor_total_C	1,255	991	142	119	3
289	- Commodity	Labor_total_E	-	-	-	-	-
290	Total		2,397	1,474	243	315	364
291							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Depreciation and		Total	Residential	Small	Medium	Interruptible
3	Amortization Expenses	Allocator	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
292	397 - Communications equip		522				
293	- Demand	Labor_total_D	249	105	22	43	79
294	- Customer	Labor_total_C	273	216	31	26	1
295	- Commodity	Labor_total_E	-	-	-	-	-
296	Total		522	321	53	69	79
297							
298	398 - Misc equip		(2,962)				
299	- Demand	Labor_total_D	(1,411)	(598)	(125)	(242)	(446)
300	- Customer	Labor_total_C	(1,551)	(1,224)	(175)	(147)	(4)
301	- Commodity	Labor_total_E	-	-	-	-	-
302	Total		(2,962)	(1,822)	(300)	(390)	(450)
303							
304	399 - Other Tangible Equipment		186,441				
305	- Demand	Labor_total_D	88,839	37,638	7,888	15,250	28,063
306	- Customer	Labor_total_C	97,601	77,059	11,019	9,278	245
307	- Commodity	Labor_total_E	-	-	-	-	-
308	Total		186,441	114,697	18,908	24,528	28,308
309							
310	Total General Plant						
311	- Demand		86,441	36,620	7,675	14,839	27,307
312	- Customer		94,971	74,970	10,726	9,038	237
313	- Commodity		-	-	-	-	-
314	Total		181,411	111,589	18,401	23,877	27,544
315							
316	Total Utility Plant						
317	- Demand		165,953	70,065	14,731	28,569	52,589
318	- Customer		365,572	261,851	46,552	56,818	352
319	- Commodity		-	-	-	-	-
320	Total		531,525	331,916	61,282	85,386	52,941

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						
2	Allocation of Depreciation and		Total	Residential	Commercial	Commercial	Industrial
3	Amortization Expenses		Company	GR-310	Small	Medium	Interruptible
4	Allocator				GC-320/330(a)	GC-320/330(b)	GC-340/350
321							
322	Intangible Plant		(7,438)	(4,509)	(771)	(1,031)	(1,128)
323	Production Plant		-	-	-	-	-
324	Transmission Plant		26,338	11,079	2,337	4,548	8,375
325	Distribution Plant		331,213	213,756	41,315	57,992	18,150
326	General Plant		181,411	111,589	18,401	23,877	27,544
327							
328	Total Plant		531,525	331,916	61,282	85,386	52,941

	A	B	C	D	E	F	G
1	<u>Liberty Utilities - Iowa</u>				Commercial	Commercial	Industrial
2	Allocation of Rate Base	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
5	<u>Net Plant in Service</u>						
6	<u>Total Gas Utility Plant</u>						
7	- Demand		7,499,305	3,157,664	665,504	1,293,842	2,382,294
8	- Customer		8,284,216	6,430,180	964,672	878,016	11,348
9	- Commodity		-	-	-	-	-
10	Total		15,783,521	9,587,844	1,630,176	2,171,858	2,393,643
11							
12	<u>Total Accumulated Depreciation</u>						
13	- Demand		4,959,784	2,086,886	440,114	856,196	1,576,586
14	- Customer		5,218,619	4,313,570	560,139	336,938	7,972
15	- Commodity		-	-	-	-	-
16	Total		10,178,403	6,400,457	1,000,253	1,193,135	1,584,559
17							
18	<u>Net Plant in Service</u>						
19	- Demand		2,539,521	1,070,778	225,390	437,645	805,708
20	- Customer		3,065,597	2,116,610	404,533	541,078	3,376
21	- Commodity		-	-	-	-	-
22	Total		5,605,118	3,187,388	629,923	978,723	809,084
23							
24	<u>Construction Work in Progress</u>						
25	<u>CWIP</u>						
26	- Demand		-				
27	- Customer		-				
28	- Commodity		-				
29	Total		-	-	-	-	-
30							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Rate Base	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
31	Net Plant in Service						
32	- Demand		2,539,521	1,070,778	225,390	437,645	805,708
33	- Customer		3,065,597	2,116,610	404,533	541,078	3,376
34	- Commodity		-	-	-	-	-
35	Total		5,605,118	3,187,388	629,923	978,723	809,084
36							
37	Additions to Utility Plant						
38	Pro Forma Plant Adjustments		1,400,000				
39	- Demand	Plant_Total_D	665,189	280,085	59,030	114,764	211,310
40	- Customer	Plant_Total_C	734,811	570,358	85,566	77,880	1,007
41	- Commodity	Plant_Total_E	-	-	-	-	-
42	Total		1,400,000	850,443	144,597	192,644	212,316
43							
44	Labor		28,450				
45	- Demand	Labor_total_D	13,557	5,743	1,204	2,327	4,282
46	- Customer	Labor_total_C	14,893	11,759	1,682	1,416	37
47	- Commodity	Labor_total_E	-	-	-	-	-
48	Total		28,450	17,502	2,885	3,743	4,320
49							
50	Gas Storage		467,146				
51	- Demand	D3_firmdemand	467,146	295,641	62,884	108,621	-
52	- Customer		-				
53	- Commodity		-				
54	Total		467,146	295,641	62,884	108,621	-
55							
56	Prepaid Expenses		21,982				
57	- Demand	Plant_Total_D	10,444	4,398	927	1,802	3,318
58	- Customer	Plant_Total_C	11,538	8,955	1,344	1,223	16
59	- Commodity	Plant_Total_E	-	-	-	-	-
60	Total		21,982	13,353	2,270	3,025	3,334
61							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Rate Base	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
62	Cash Working Capital		30,138				
63	- Demand	EXP_Total_D	16,218	6,129	1,274	2,557	6,257
64	- Customer	EXP_Total_C	13,921	10,859	1,550	1,377	134
65	- Commodity	EXP_Total_E	-	-	-	-	-
66	Total		30,138	16,988	2,825	3,934	6,391
67							
68	Total Additions to Utility Plant						
69	- Demand		1,172,554	591,996	125,319	230,071	225,167
70	- Customer		775,163	601,931	90,142	81,896	1,194
71	- Commodity		-	-	-	-	-
72	Total		1,947,716	1,193,928	215,461	311,967	226,361
73							
74							
75	Reductions to Utility Plant						
76	Accumulated Depreciation Adjustment		(2,078)				
77	- Demand	Plant_Total_D	(987)	(416)	(88)	(170)	(314)
78	- Customer	Plant_Total_C	(1,090)	(846)	(127)	(116)	(1)
79	- Commodity	Plant_Total_E	-	-	-	-	-
80	Total		(2,078)	(1,262)	(215)	(286)	(315)
81							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Rate Base	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
82	Accumulated Deferred Income Taxes		856,695				
83	- Demand	Plant_Total_D	407,046	171,391	36,122	70,227	129,306
84	- Customer	Plant_Total_C	449,649	349,016	52,360	47,657	616
85	- Commodity	Plant_Total_E	-	-	-	-	-
86	Total		856,695	520,407	88,482	117,884	129,922
87							
88	Customer Deposits		139,297				
89	- Demand		-				
90	- Customer	C1_customers	139,297	123,539	13,232	2,393	134
91	- Commodity		-				
92	Total		139,297	123,539	13,232	2,393	134
93							
94	Reserve for Bad Debt		27,235				
95	- Demand		-				
96	- Customer	D4_totalrevenues	27,235	16,135	2,982	5,729	2,388
97	- Commodity		-				
98	Total		27,235	16,135	2,982	5,729	2,388
99							
100	Total Deductions						
101	- Demand		406,059	170,976	36,035	70,057	128,992
102	- Customer		615,091	487,844	68,447	55,663	3,137
103	- Commodity		-	-	-	-	-
104	Total		1,021,150	658,819	104,481	125,720	132,129
105							
106	Total Rate Base						
107	- Demand		3,306,016	1,491,799	314,675	597,659	901,883
108	- Customer		3,225,669	2,230,697	426,228	567,310	1,433
109	- Commodity		-	-	-	-	-
110	Total		6,531,685	3,722,496	740,903	1,164,970	903,316
111							
112	Demand		50.62%	22.84%	4.82%	9.15%	13.81%
113	Customer		49.38%	34.15%	6.53%	8.69%	0.02%
114	Commodity		0.00%	0.00%	0.00%	0.00%	0.00%
115	Total		100.00%	56.99%	11.34%	17.84%	13.83%

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Accumulated Depreciation	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
5	Intangible Plant						
6	301 - Organization Costs		-				
7	- Demand		-				
8	- Customer		-				
9	- Commodity		-				
10	Total		-	-	-	-	-
11							
12	302 - Franchise and Consents		-				
13	- Demand		-				
14	- Customer		-				
15	- Commodity		-				
16	Total		-	-	-	-	-
17							
18	303 - Misc. Intangible Plant		37,095				
19	- Demand	Plant_P/T/D_D	17,617	7,410	1,563	3,042	5,601
20	- Customer	Plant_P/T/D_C	19,478	15,076	2,280	2,099	23
21	- Commodity	Plant_P/T/D_E	-	-	-	-	-
22	Total		37,095	22,486	3,843	5,141	5,624
23							
24	Total Intangible Plant						
25	- Demand		17,617	7,410	1,563	3,042	5,601
26	- Customer		19,478	15,076	2,280	2,099	23
27	- Commodity		-	-	-	-	-
28	Total		37,095	22,486	3,843	5,141	5,624
29							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Accumulated Depreciation	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
30	Production Plant						
31	304 - Land & land rights		-				
32	- Demand		-				
33	- Customer		-				
34	- Commodity		-				
35	Total		-	-	-	-	-
36							
37	305 - Structures & improvements		-				
38	- Demand		-				
39	- Customer		-				
40	- Commodity		-				
41	Total		-	-	-	-	-
42							
43	311 - LPG equipment		-				
44	- Demand		-				
45	- Customer		-				
46	- Commodity		-				
47	Total		-	-	-	-	-
48							
49	325.4 - Rights of way		-				
50	- Demand		-				
51	- Customer		-				
52	- Commodity		-				
53	Total		-	-	-	-	-
54							
55	Total Production Plant						
56	- Demand		-	-	-	-	-
57	- Customer		-	-	-	-	-
58	- Commodity		-	-	-	-	-
59	Total		-	-	-	-	-
60							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						
2	Allocation of Accumulated Depreciation	Allocation	Total	Residential	Commercial	Commercial	Industrial
3		Factor	Company	GR-310	Small	Medium	Interruptible
4					GC-320/330(a)	GC-320/330(b)	GC-340/350
61	Transmission Plant						
62	365.0 - T&D: Land and Land Rights		14,761				
63	- Demand	D2_peak&average	14,761	6,209	1,310	2,549	4,693
64	- Customer		-				
65	- Commodity		-				
66	Total		14,761	6,209	1,310	2,549	4,693
67							
68	365.1 - Land and Land Rights		-				
69	- Demand		-				
70	- Customer		-				
71	- Commodity		-				
72	Total		-	-	-	-	-
73							
74	365.2 - Rights-of-Way		-				
75	- Demand		-				
76	- Customer		-				
77	- Commodity		-				
78	Total		-	-	-	-	-
79							
80	366.1 - Compressor station structures		20,325				
81	- Demand	D2_peak&average	20,325	8,549	1,803	3,509	6,463
82	- Customer		-				
83	- Commodity		-				
84	Total		20,325	8,549	1,803	3,509	6,463
85							

	A	B	C	D	E	F	G
1	<u>Liberty Utilities - Iowa</u>				Commercial	Commercial	Industrial
2	Allocation of Accumulated Depreciation	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
86	<u>367.1 - Mains</u>		<u>441,473</u>				
87	- Demand	D2_peak&average	441,473	185,697	39,174	76,230	140,373
88	- Customer		-				
89	- Commodity		-				
90	Total		441,473	185,697	39,174	76,230	140,373
91							
92	<u>368 - Compressor Station Equipment</u>		<u>-</u>				
93	- Demand		-				
94	- Customer		-				
95	- Commodity		-				
96	Total		-	-	-	-	-
97							
98	<u>369 - Measuring and Reg. Sta. Equipment</u>		<u>134,693</u>				
99	- Demand	D2_peak&average	134,693	56,656	11,952	23,258	42,828
100	- Customer		-				
101	- Commodity		-				
102	Total		134,693	56,656	11,952	23,258	42,828
103							
104	<u>370 - Communication Equipment</u>		<u>-</u>				
105	- Demand		-				
106	- Customer		-				
107	- Commodity		-				
108	Total		-	-	-	-	-
109							
110	<u>371 - Other equipment</u>		<u>-</u>				
111	- Demand		-				
112	- Customer		-				
113	- Commodity		-				
114	Total		-	-	-	-	-
115							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Accumulated Depreciation	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
116	Total Transmission Plant						
117	- Demand		611,252	257,111	54,239	105,546	194,356
118	- Customer		-	-	-	-	-
119	- Commodity		-	-	-	-	-
120	Total		611,252	257,111	54,239	105,546	194,356
121							
122	Distribution Plant						
123	374 - Land and land rights		8,000				
124	- Demand	Plant_375-386_D	3,240	1,363	288	559	1,030
125	- Customer	Plant_375-386_C	4,760	3,684	557	513	6
126	- Commodity	Plant_375-386_E	-	-	-	-	-
127	Total		8,000	5,047	845	1,073	1,036
128							
129	374.2 - T&D: Land and land rights		1,182				
130	- Demand	Plant_375-386_D	479	201	42	83	152
131	- Customer	Plant_375-386_C	703	544	82	76	1
132	- Commodity	Plant_375-386_E	-	-	-	-	-
133	Total		1,182	746	125	158	153
134							
135	375 - Structures and improvements		3,488				
136	- Demand	D2_peak&average	3,488	1,467	310	602	1,109
137	- Customer		-				
138	- Commodity		-				
139	Total		3,488	1,467	310	602	1,109
140							
141	376 - Mains		16,905				
142	- Demand	D2_peak&average	16,905	7,111	1,500	2,919	5,375
143	- Customer		-				
144	- Commodity		-				
145	Total		16,905	7,111	1,500	2,919	5,375
146							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						
2	Allocation of Accumulated Depreciation	Allocation	Total	Residential	Commercial	Commercial	Industrial
3		Factor	Company	GR-310	Small	Medium	Interruptible
4					GC-320/330(a)	GC-320/330(b)	GC-340/350
147	376.1 - Mains steel		1,643,229				
148	- Demand	D2_peak&average	1,643,229	691,191	145,811	283,739	522,488
149	- Customer		-				
150	- Commodity		-				
151	Total		1,643,229	691,191	145,811	283,739	522,488
152							
153	376.2 - Mains plastic		1,939,890				
154	- Demand	D2_peak&average	1,939,890	815,976	172,135	334,964	616,816
155	- Customer		-				
156	- Commodity		-				
157	Total		1,939,890	815,976	172,135	334,964	616,816
158							
159	377 - Compressor station equipment		-				
160	- Demand		-				
161	- Customer		-				
162	- Commodity		-				
163	Total		-	-	-	-	-
164							
165	378 - Measurement & equip: Gen		151,212				
166	- Demand	D2_peak&average	151,212	63,604	13,418	26,110	48,080
167	- Customer		-				
168	- Commodity		-				
169	Total		151,212	63,604	13,418	26,110	48,080
170							
171	379 - Measurement & equip: CG		332,752				
172	- Demand	D2_peak&average	332,752	139,965	29,526	57,457	105,803
173	- Customer		-				
174	- Commodity		-				
175	Total		332,752	139,965	29,526	57,457	105,803
176							

	A	B	C	D	E	F	G
1	<u>Liberty Utilities - Iowa</u>				Commercial	Commercial	Industrial
2	Allocation of Accumulated Depreciation	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
177	380 - Services		3,829,988				
178	- Demand		-				
179	- Customer	C5_services	3,829,988	3,377,472	372,687	73,745	6,085
180	- Commodity		-				
181	Total		3,829,988	3,377,472	372,687	73,745	6,085
182							
183	381 - Meters		(3,414)				
184	- Demand		-				
185	- Customer	C3_meters	(3,414)	(2,200)	(481)	(733)	-
186	- Commodity		-				
187	Total		(3,414)	(2,200)	(481)	(733)	-
188							
189	382 - Meter installation		1,025,303				
190	- Demand		-				
191	- Customer	C3_meters	1,025,303	660,661	144,484	220,158	-
192	- Commodity		-				
193	Total		1,025,303	660,661	144,484	220,158	-
194							
195	383 - House regulators		69,043				
196	- Demand		-				
197	- Customer	C3_meters	69,043	44,488	9,729	14,825	-
198	- Commodity		-				
199	Total		69,043	44,488	9,729	14,825	-
200							
201	384 - House regulators Installations		-				
202	- Demand		-				
203	- Customer		-				
204	- Commodity		-				
205	Total		-	-	-	-	-
206							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						
2	Allocation of Accumulated Depreciation	Allocation	Total	Residential	Commercial	Commercial	Industrial
3		Factor	Company	GR-310	Small	Medium	Interruptible
4					GC-320/330(a)	GC-320/330(b)	GC-340/350
207	385 - Industrial Meas & Reg stations		1,223				
208	- Demand		-				
209	- Customer	C4_industrialmeters	1,223	-	-	-	1,223
210	- Commodity		-				
211	Total		1,223	-	-	-	1,223
212							
213	386 - Other property on customer premises		-				
214	- Demand		-				
215	- Customer		-				
216	- Commodity		-				
217	Total		-	-	-	-	-
218							
219	387 - Other distribution equip.		54,384				
220	- Demand	Plant_375-386_D	22,026	9,265	1,954	3,803	7,004
221	- Customer	Plant_375-386_C	32,357	25,045	3,787	3,488	38
222	- Commodity	Plant_375-386_E	-	-	-	-	-
223	Total		54,384	34,310	5,741	7,291	7,042
224							
225	Total Distribution Plant						
226	- Demand		4,113,222	1,730,144	364,983	710,237	1,307,859
227	- Customer		4,959,963	4,109,694	530,845	312,071	7,353
228	- Commodity		-	-	-	-	-
229	Total		9,073,185	5,839,838	895,828	1,022,308	1,315,211
230							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Accumulated Depreciation	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
231	General Plant						
232	389 - Land & land rights		4,868				
233	- Demand	Labor_total_D	2,320	983	206	398	733
234	- Customer	Labor_total_C	2,549	2,012	288	242	6
235	- Commodity	Labor_total_E	-	-	-	-	-
236	Total		4,868	2,995	494	640	739
237							
238	390 - Structures & improvements		74,908				
239	- Demand	Labor_total_D	35,694	15,122	3,169	6,127	11,275
240	- Customer	Labor_total_C	39,214	30,961	4,427	3,728	98
241	- Commodity	Labor_total_E	-	-	-	-	-
242	Total		74,908	46,083	7,597	9,855	11,373
243							
244	390.2 - General Improvements		3,784				
245	- Demand	Labor_total_D	1,803	764	160	309	570
246	- Customer	Labor_total_C	1,981	1,564	224	188	5
247	- Commodity	Labor_total_E	-	-	-	-	-
248	Total		3,784	2,328	384	498	574
249							
250	391 - Office Furniture and Equipment		37,707				
251	- Demand	Labor_total_D	17,967	7,612	1,595	3,084	5,676
252	- Customer	Labor_total_C	19,739	15,585	2,229	1,876	50
253	- Commodity	Labor_total_E	-	-	-	-	-
254	Total		37,707	23,197	3,824	4,961	5,725
255							
256	392 - Transportation equip		11,795				
257	- Demand	Labor_total_D	5,621	2,381	499	965	1,775
258	- Customer	Labor_total_C	6,175	4,875	697	587	15
259	- Commodity	Labor_total_E	-	-	-	-	-
260	Total		11,795	7,256	1,196	1,552	1,791
261							

	A	B	C	D	E	F	G
1	<u>Liberty Utilities - Iowa</u>				Commercial	Commercial	Industrial
2	Allocation of Accumulated Depreciation	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
262	392.1 - Transportation equip < 12 Lbs.		8,847				
263	- Demand	Labor_total_D	4,216	1,786	374	724	1,332
264	- Customer	Labor_total_C	4,631	3,657	523	440	12
265	- Commodity	Labor_total_E	-	-	-	-	-
266	Total		8,847	5,443	897	1,164	1,343
267							
268	393 - Stores Equipment		-				
269	- Demand		-				
270	- Customer		-				
271	- Commodity		-				
272	Total		-	-	-	-	-
273							
274	394 - Tools, shop and garage equip		4,767				
275	- Demand	Plant_P/T/D_D	2,264	952	201	391	720
276	- Customer	Plant_P/T/D_C	2,503	1,937	293	270	3
277	- Commodity	Plant_P/T/D_E	-	-	-	-	-
278	Total		4,767	2,890	494	661	723
279							
280	395 - Laboratory Equipment		-				
281	- Demand		-				
282	- Customer		-				
283	- Commodity		-				
284	Total		-	-	-	-	-
285							
286	396 - Power operated equip		1,242				
287	- Demand	Labor_total_D	592	251	53	102	187
288	- Customer	Labor_total_C	650	513	73	62	2
289	- Commodity	Labor_total_E	-	-	-	-	-
290	Total		1,242	764	126	163	189
291							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Accumulated Depreciation	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
292	397 - Communications equip		5,000				
293	- Demand	Labor_total_D	2,382	1,009	212	409	753
294	- Customer	Labor_total_C	2,617	2,066	295	249	7
295	- Commodity	Labor_total_E	-	-	-	-	-
296	Total		5,000	3,076	507	658	759
297							
298	398 - Misc equip		34,839				
299	- Demand	Labor_total_D	16,601	7,033	1,474	2,850	5,244
300	- Customer	Labor_total_C	18,238	14,400	2,059	1,734	46
301	- Commodity	Labor_total_E	-	-	-	-	-
302	Total		34,839	21,433	3,533	4,583	5,290
303							
304	399 - Other Tangible Equipment		269,115				
305	- Demand	Labor_total_D	128,234	54,328	11,386	22,013	40,507
306	- Customer	Labor_total_C	140,881	111,230	15,906	13,392	353
307	- Commodity	Labor_total_E	-	-	-	-	-
308	Total		269,115	165,558	27,292	35,405	40,860
309							
310	Total General Plant						
311	- Demand		217,693	92,222	19,329	37,372	68,770
312	- Customer		239,179	188,800	27,014	22,768	597
313	- Commodity		-	-	-	-	-
314	Total		456,872	281,022	46,343	60,140	69,367
315							
316	Total Utility Plant						
317	- Demand		4,959,784	2,086,886	440,114	856,196	1,576,586
318	- Customer		5,218,619	4,313,570	560,139	336,938	7,972
319	- Commodity		-	-	-	-	-
320	Total		10,178,403	6,400,457	1,000,253	1,193,135	1,584,559

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Accumulated Depreciation	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
321							
322	Intangible Plant		37,095	22,486	3,843	5,141	5,624
323	Production Plant		-	-	-	-	-
324	Transmission Plant		611,252	257,111	54,239	105,546	194,356
325	Distribution Plant		9,073,185	5,839,838	895,828	1,022,308	1,315,211
326	General Plant		456,872	281,022	46,343	60,140	69,367
327							
328	Total Plant		10,178,403	6,400,457	1,000,253	1,193,135	1,584,559

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Construction work in progress	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
5	Intangible Plant						
6	301 - Organization Costs		-				
7	- Demand		-				
8	- Customer		-				
9	- Commodity		-				
10	Total		-	-	-	-	-
11							
12	302 - Franchise and Consents		-				
13	- Demand		-				
14	- Customer		-				
15	- Commodity		-				
16	Total		-	-	-	-	-
17							
18	303 - Misc. Intangible Plant		-				
19	- Demand		-				
20	- Customer		-				
21	- Commodity		-				
22	Total		-	-	-	-	-
23							
24	Total Intangible Plant						
25	- Demand		-	-	-	-	-
26	- Customer		-	-	-	-	-
27	- Commodity		-	-	-	-	-
28	Total		-	-	-	-	-
29							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Construction work in progress	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
30	Production Plant						
31	304 - Land & land rights		-				
32	- Demand		-				
33	- Customer		-				
34	- Commodity		-				
35	Total		-	-	-	-	-
36							
37	305 - Structures & improvements		-				
38	- Demand		-				
39	- Customer		-				
40	- Commodity		-				
41	Total		-	-	-	-	-
42							
43	311 - LPG equipment		-				
44	- Demand		-				
45	- Customer		-				
46	- Commodity		-				
47	Total		-	-	-	-	-
48							
49	325.4 - Rights of way		-				
50	- Demand		-				
51	- Customer		-				
52	- Commodity		-				
53	Total		-	-	-	-	-
54							
55	Total Production Plant						
56	- Demand		-	-	-	-	-
57	- Customer		-	-	-	-	-
58	- Commodity		-	-	-	-	-
59	Total		-	-	-	-	-
60							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Construction work in progress	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
61	Transmission Plant						
62	365.0 - T&D: Land and Land Rights		-				
63	- Demand		-				
64	- Customer		-				
65	- Commodity		-				
66	Total		-	-	-	-	-
67							
68	365.1 - Land and Land Rights		-				
69	- Demand		-				
70	- Customer		-				
71	- Commodity		-				
72	Total		-	-	-	-	-
73							
74	365.2 - Rights-of-Way		-				
75	- Demand		-				
76	- Customer		-				
77	- Commodity		-				
78	Total		-	-	-	-	-
79							
80	366.1 - Compressor station structures		-				
81	- Demand		-				
82	- Customer		-				
83	- Commodity		-				
84	Total		-	-	-	-	-
85							
86	367.1 - Mains		-				
87	- Demand		-	-	-	-	-
88	- Customer		-				
89	- Commodity		-				
90	Total		-	-	-	-	-
91							

	A	B	C	D	E	F	G
1	<u>Liberty Utilities - Iowa</u>				Commercial	Commercial	Industrial
2	Allocation of Construction work in progress	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
92	368 - Compressor Station Equipment		-				
93	- Demand		-				
94	- Customer		-				
95	- Commodity		-				
96	Total		-	-	-	-	-
97							
98	369 - Measuring and Reg. Sta. Equipment		-				
99	- Demand		-				
100	- Customer		-				
101	- Commodity		-				
102	Total		-	-	-	-	-
103							
104	370 - Communication Equipment		-				
105	- Demand		-				
106	- Customer		-				
107	- Commodity		-				
108	Total		-	-	-	-	-
109							
110	371 - Other equipment		-				
111	- Demand		-				
112	- Customer		-				
113	- Commodity		-				
114	Total		-	-	-	-	-
115							
116	Total Transmission Plant						
117	- Demand		-	-	-	-	-
118	- Customer		-	-	-	-	-
119	- Commodity		-	-	-	-	-
120	Total		-	-	-	-	-
121							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Construction work in progress	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
122	Distribution Plant						
123	374 - Land and land rights		-				
124	- Demand		-				
125	- Customer		-				
126	- Commodity		-				
127	Total		-	-	-	-	-
128							
129	374.2 - T&D: Land and land rights		-				
130	- Demand		-				
131	- Customer		-				
132	- Commodity		-				
133	Total		-	-	-	-	-
134							
135	375 - Structures and improvements		-				
136	- Demand		-				
137	- Customer		-				
138	- Commodity		-				
139	Total		-	-	-	-	-
140							
141	376 - Mains		-				
142	- Demand		-				
143	- Customer		-				
144	- Commodity		-				
145	Total		-	-	-	-	-
146							
147	376.1 - Mains steel		-				
148	- Demand		-				
149	- Customer		-				
150	- Commodity		-				
151	Total		-	-	-	-	-
152							

	A	B	C	D	E	F	G
1	<u>Liberty Utilities - Iowa</u>				Commercial	Commercial	Industrial
2	Allocation of Construction work in progress	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
153	376.2 - Mains plastic		-				
154	- Demand		-				
155	- Customer		-				
156	- Commodity		-				
157	Total		-	-	-	-	-
158							
159	377 - Compressor station equipment		-				
160	- Demand		-				
161	- Customer		-				
162	- Commodity		-				
163	Total		-	-	-	-	-
164							
165	378 - Measurement & equip: Gen		-				
166	- Demand		-				
167	- Customer		-				
168	- Commodity		-				
169	Total		-	-	-	-	-
170							
171	379 - Measurement & equip: CG		-				
172	- Demand		-				
173	- Customer		-				
174	- Commodity		-				
175	Total		-	-	-	-	-
176							
177	380 - Services		-				
178	- Demand		-				
179	- Customer		-				
180	- Commodity		-				
181	Total		-	-	-	-	-
182							

	A	B	C	D	E	F	G
1	<u>Liberty Utilities - Iowa</u>				Commercial	Commercial	Industrial
2	Allocation of Construction work in progress	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
183	381 - Meters		-				
184	- Demand		-				
185	- Customer		-				
186	- Commodity		-				
187	Total		-	-	-	-	-
188							
189	382 - Meter installation		-				
190	- Demand		-				
191	- Customer		-				
192	- Commodity		-				
193	Total		-	-	-	-	-
194							
195	383 - House regulators		-				
196	- Demand		-				
197	- Customer		-				
198	- Commodity		-				
199	Total		-	-	-	-	-
200							
201	384 - House regulators Installations		-				
202	- Demand		-				
203	- Customer		-				
204	- Commodity		-				
205	Total		-	-	-	-	-
206							
207	385 - Industrial Meas & Reg stations		-				
208	- Demand		-				
209	- Customer		-				
210	- Commodity		-				
211	Total		-	-	-	-	-
212							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Construction work in progress	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
231	General Plant						
232	389 - Land & land rights		-				
233	- Demand		-				
234	- Customer		-				
235	- Commodity		-				
236	Total		-	-	-	-	-
237							
238	390 - Structures & improvements		-				
239	- Demand		-				
240	- Customer		-				
241	- Commodity		-				
242	Total		-	-	-	-	-
243							
244	390.2 - General Improvements		-				
245	- Demand		-				
246	- Customer		-				
247	- Commodity		-				
248	Total		-	-	-	-	-
249							
250	391 - Office Furniture and Equipment		-				
251	- Demand		-				
252	- Customer		-				
253	- Commodity		-				
254	Total		-	-	-	-	-
255							
256	392 - Transportation equip		-				
257	- Demand		-				
258	- Customer		-				
259	- Commodity		-				
260	Total		-	-	-	-	-
261							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Construction work in progress	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
262	392.1 - Transportation equip < 12 Lbs.		-				
263	- Demand		-				
264	- Customer		-				
265	- Commodity		-				
266	Total		-	-	-	-	-
267							
268	393 - Stores Equipment		-				
269	- Demand		-				
270	- Customer		-				
271	- Commodity		-				
272	Total		-	-	-	-	-
273							
274	394 - Tools, shop and garage equip		-				
275	- Demand		-				
276	- Customer		-				
277	- Commodity		-				
278	Total		-	-	-	-	-
279							
280	395 - Laboratory Equipment		-				
281	- Demand		-				
282	- Customer		-				
283	- Commodity		-				
284	Total		-	-	-	-	-
285							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Construction work in progress	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
286	396 - Power operated equip		-				
287	- Demand		-				
288	- Customer		-				
289	- Commodity		-				
290	Total		-	-	-	-	-
291							
292	397 - Communications equip		-				
293	- Demand		-				
294	- Customer		-				
295	- Commodity		-				
296	Total		-	-	-	-	-
297							
298	398 - Misc equip		-				
299	- Demand		-				
300	- Customer		-				
301	- Commodity		-				
302	Total		-	-	-	-	-
303							
304	399 - Other Tangible Equipment		-				
305	- Demand		-				
306	- Customer		-				
307	- Commodity		-				
308	Total		-	-	-	-	-
309							
310	Total General Plant						
311	- Demand		-	-	-	-	-
312	- Customer		-	-	-	-	-
313	- Commodity		-	-	-	-	-
314	Total		-	-	-	-	-
315							
316	Total Utility Plant						
317	- Demand		-	-	-	-	-
318	- Customer		-	-	-	-	-

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	<u>Liberty Utilities - Iowa</u>				Commercial	Commercial	Industrial
2	Allocation of Construction work in progress	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
319	- Commodity		-	-	-	-	-

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	<u>Liberty Utilities - Iowa</u>						
2	Allocation of Construction work in progress	Allocation	Total	Residential	Commercial	Commercial	Industrial
3		Factor	Company	GR-310	Small	Medium	Interruptible
4					GC-320/330(a)	GC-320/330(b)	GC-340/350
320	Total		-	-	-	-	-
321							
322	Intangible Plant		-	-	-	-	-
323	Production Plant		-	-	-	-	-
324	Transmission Plant		-	-	-	-	-
325	Distribution Plant		-	-	-	-	-
326	General Plant		-	-	-	-	-
327							
328	Total Plant		-	-	-	-	-

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Gross Plant	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
5	Intangible Plant						
6	301 - Organization Costs		3,542				
7	- Demand	Plant_P/T/D_D	1,682	708	149	290	535
8	- Customer	Plant_P/T/D_C	1,860	1,440	218	200	2
9	- Commodity	Plant_P/T/D_E	-	-	-	-	-
10	Total		3,542	2,147	367	491	537
11							
12	302 - Franchise and Consents		-				
13	- Demand		-				
14	- Customer		-				
15	- Commodity		-				
16	Total		-	-	-	-	-
17							
18	303 - Misc. Intangible Plant		37,095				
19	- Demand	Plant_P/T/D_D	17,617	7,410	1,563	3,042	5,601
20	- Customer	Plant_P/T/D_C	19,478	15,076	2,280	2,099	23
21	- Commodity	Plant_P/T/D_E	-	-	-	-	-
22	Total		37,095	22,486	3,843	5,141	5,624
23							
24	Total Intangible Plant						
25	- Demand		19,299	8,118	1,712	3,332	6,136
26	- Customer		21,338	16,516	2,497	2,300	25
27	- Commodity		-	-	-	-	-
28	Total		40,637	24,633	4,210	5,632	6,162
29							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Gross Plant	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
30	Production Plant						
31	304 - Land & land rights		-				
32	- Demand		-				
33	- Customer		-				
34	- Commodity		-				
35	Total		-	-	-	-	-
36							
37	305 - Structures & improvements		-				
38	- Demand		-				
39	- Customer		-				
40	- Commodity		-				
41	Total		-	-	-	-	-
42							
43	311 - LPG equipment		-				
44	- Demand		-				
45	- Customer		-				
46	- Commodity		-				
47	Total		-	-	-	-	-
48							
49	325.4 - Rights of way		-				
50	- Demand		-				
51	- Customer		-				
52	- Commodity		-				
53	Total		-	-	-	-	-
54							
55	Total Production Plant						
56	- Demand		-	-	-	-	-
57	- Customer		-	-	-	-	-
58	- Commodity		-	-	-	-	-
59	Total		-	-	-	-	-
60							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						
2	Allocation of Gross Plant	Allocation	Total	Residential	Commercial	Commercial	Industrial
3		Factor	Company	GR-310	Small	Medium	Interruptible
4					GC-320/330(a)	GC-320/330(b)	GC-340/350
61	Transmission Plant						
62	365.0 - T&D: Land and Land Rights		16,463				
63	- Demand	D2_peak&average	16,463	6,925	1,461	2,843	5,235
64	- Customer		-				
65	- Commodity		-				
66	Total		16,463	6,925	1,461	2,843	5,235
67							
68	365.1 - Land and Land Rights		149,716				
69	- Demand	D2_peak&average	149,716	62,975	13,285	25,852	47,604
70	- Customer		-				
71	- Commodity		-				
72	Total		149,716	62,975	13,285	25,852	47,604
73							
74	365.2 - Rights-of-Way		-				
75	- Demand		-				
76	- Customer		-				
77	- Commodity		-				
78	Total		-	-	-	-	-
79							
80	366.1 - Compressor station structures		41,921				
81	- Demand	D2_peak&average	41,921	17,633	3,720	7,239	13,329
82	- Customer		-				
83	- Commodity		-				
84	Total		41,921	17,633	3,720	7,239	13,329
85							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						
2	Allocation of Gross Plant	Allocation	Total	Residential	Commercial	Commercial	Industrial
3		Factor	Company	GR-310	Small	Medium	Interruptible
4					GC-320/330(a)	GC-320/330(b)	GC-340/350
86	<u>367.1 - Mains</u>		<u>1,168,922</u>				
87	- Demand	D2_peak&average	1,168,922	491,683	103,723	201,840	371,676
88	- Customer		-				
89	- Commodity		-				
90	Total		1,168,922	491,683	103,723	201,840	371,676
91							
92	<u>368 - Compressor Station Equipment</u>		<u>-</u>				
93	- Demand		-				
94	- Customer		-				
95	- Commodity		-				
96	Total		-	-	-	-	-
97							
98	<u>369 - Measuring and Reg. Sta. Equipment</u>		<u>208,240</u>				
99	- Demand	D2_peak&average	208,240	87,592	18,478	35,957	66,213
100	- Customer		-				
101	- Commodity		-				
102	Total		208,240	87,592	18,478	35,957	66,213
103							
104	<u>370 - Communication Equipment</u>		<u>-</u>				
105	- Demand		-				
106	- Customer		-				
107	- Commodity		-				
108	Total		-	-	-	-	-
109							
110	<u>371 - Other equipment</u>		<u>-</u>				
111	- Demand		-				
112	- Customer		-				
113	- Commodity		-				
114	Total		-	-	-	-	-
115							

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Gross Plant	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
116	Total Transmission Plant						
117	- Demand		1,585,261	666,808	140,667	273,730	504,057
118	- Customer		-	-	-	-	-
119	- Commodity		-	-	-	-	-
120	Total		1,585,261	666,808	140,667	273,730	504,057
121							
122	Distribution Plant						
123	374 - Land and land rights		23,766				
124	- Demand	Plant_375-386_D	9,626	4,049	854	1,662	3,061
125	- Customer	Plant_375-386_C	14,140	10,945	1,655	1,524	17
126	- Commodity	Plant_375-386_E	-	-	-	-	-
127	Total		23,766	14,993	2,509	3,186	3,077
128							
129	374.2 - T&D: Land and land rights		1,182				
130	- Demand	Plant_375-386_D	479	201	42	83	152
131	- Customer	Plant_375-386_C	703	544	82	76	1
132	- Commodity	Plant_375-386_E	-	-	-	-	-
133	Total		1,182	746	125	158	153
134							
135	375 - Structures and improvements		3,488				
136	- Demand	D2_peak&average	3,488	1,467	310	602	1,109
137	- Customer		-				
138	- Commodity		-				
139	Total		3,488	1,467	310	602	1,109
140							
141	376 - Mains		126,721				
142	- Demand	D2_peak&average	126,721	53,303	11,244	21,881	40,293
143	- Customer		-				
144	- Commodity		-				
145	Total		126,721	53,303	11,244	21,881	40,293
146							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						
2	Allocation of Gross Plant	Allocation	Total	Residential	Commercial	Commercial	Industrial
3		Factor	Company	GR-310	Small	Medium	Interruptible
4					GC-320/330(a)	GC-320/330(b)	GC-340/350
147	376.1 - Mains steel		1,643,229				
148	- Demand	D2_peak&average	1,643,229	691,191	145,811	283,739	522,488
149	- Customer		-				
150	- Commodity		-				
151	Total		1,643,229	691,191	145,811	283,739	522,488
152							
153	376.2 - Mains plastic		2,509,846				
154	- Demand	D2_peak&average	2,509,846	1,055,716	222,709	433,379	798,042
155	- Customer		-				
156	- Commodity		-				
157	Total		2,509,846	1,055,716	222,709	433,379	798,042
158							
159	377 - Compressor station equipment		-				
160	- Demand		-				
161	- Customer		-				
162	- Commodity		-				
163	Total		-	-	-	-	-
164							
165	378 - Measurement & equip: Gen		152,148				
166	- Demand	D2_peak&average	152,148	63,998	13,501	26,272	48,378
167	- Customer		-				
168	- Commodity		-				
169	Total		152,148	63,998	13,501	26,272	48,378
170							
171	379 - Measurement & equip: CG		356,151				
172	- Demand	D2_peak&average	356,151	149,808	31,603	61,497	113,243
173	- Customer		-				
174	- Commodity		-				
175	Total		356,151	149,808	31,603	61,497	113,243
176							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Gross Plant	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
177	380 - Services		3,848,542				
178	- Demand		-				
179	- Customer	C5_services	3,848,542	3,393,833	374,492	74,102	6,114
180	- Commodity		-				
181	Total		3,848,542	3,393,833	374,492	74,102	6,114
182							
183	381 - Meters		1,368,637				
184	- Demand		-				
185	- Customer	C3_meters	1,368,637	881,891	192,866	293,880	-
186	- Commodity		-				
187	Total		1,368,637	881,891	192,866	293,880	-
188							
189	382 - Meter installation		1,686,111				
190	- Demand		-				
191	- Customer	C3_meters	1,686,111	1,086,458	237,604	362,049	-
192	- Commodity		-				
193	Total		1,686,111	1,086,458	237,604	362,049	-
194							
195	383 - House regulators		133,479				
196	- Demand		-				
197	- Customer	C3_meters	133,479	86,008	18,810	28,661	-
198	- Commodity		-				
199	Total		133,479	86,008	18,810	28,661	-
200							
201	384 - House regulators Installations		-				
202	- Demand		-				
203	- Customer		-				
204	- Commodity		-				
205	Total		-	-	-	-	-
206							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						
2	Allocation of Gross Plant	Allocation	Total	Residential	Commercial	Commercial	Industrial
3		Factor	Company	GR-310	Small	Medium	Interruptible
4					GC-320/330(a)	GC-320/330(b)	GC-340/350
207	385 - Industrial Meas & Reg stations		<u>2,210</u>				
208	- Demand		-				
209	- Customer	C4_industrialmeters	2,210	-	-	-	2,210
210	- Commodity		-				
211	Total		<u>2,210</u>	-	-	-	2,210
212							
213	386 - Other property on customer premises		<u>-</u>				
214	- Demand		-				
215	- Customer		-				
216	- Commodity		-				
217	Total		<u>-</u>	-	-	-	-
218							
219	387 - Other distribution equip.		<u>54,384</u>				
220	- Demand	Plant_375-386_D	22,026	9,265	1,954	3,803	7,004
221	- Customer	Plant_375-386_C	32,357	25,045	3,787	3,488	38
222	- Commodity	Plant_375-386_E	-	-	-	-	-
223	Total		<u>54,384</u>	<u>34,310</u>	<u>5,741</u>	<u>7,291</u>	<u>7,042</u>
224							
225	Total Distribution Plant						
226	- Demand		4,823,714	2,028,997	428,028	832,919	1,533,770
227	- Customer		7,086,179	5,484,724	829,295	763,780	8,380
228	- Commodity		-	-	-	-	-
229	Total		<u>11,909,893</u>	<u>7,513,721</u>	<u>1,257,323</u>	<u>1,596,699</u>	<u>1,542,150</u>
230							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Gross Plant	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
231	General Plant						
232	389 - Land & land rights		4,868				
233	- Demand	Labor_total_D	2,320	983	206	398	733
234	- Customer	Labor_total_C	2,549	2,012	288	242	6
235	- Commodity	Labor_total_E	-	-	-	-	-
236	Total		4,868	2,995	494	640	739
237							
238	390 - Structures & improvements		570,863				
239	- Demand	Labor_total_D	272,018	115,245	24,153	46,695	85,926
240	- Customer	Labor_total_C	298,845	235,947	33,741	28,408	750
241	- Commodity	Labor_total_E	-	-	-	-	-
242	Total		570,863	351,192	57,893	75,103	86,675
243							
244	390.2 - General Improvements		8,335				
245	- Demand	Labor_total_D	3,972	1,683	353	682	1,255
246	- Customer	Labor_total_C	4,363	3,445	493	415	11
247	- Commodity	Labor_total_E	-	-	-	-	-
248	Total		8,335	5,128	845	1,097	1,266
249							
250	391 - Office Furniture and Equipment		218,792				
251	- Demand	Labor_total_D	104,255	44,169	9,257	17,897	32,932
252	- Customer	Labor_total_C	114,537	90,431	12,932	10,888	287
253	- Commodity	Labor_total_E	-	-	-	-	-
254	Total		218,792	134,600	22,188	28,784	33,220
255							
256	392 - Transportation equip		15,494				
257	- Demand	Labor_total_D	7,383	3,128	656	1,267	2,332
258	- Customer	Labor_total_C	8,111	6,404	916	771	20
259	- Commodity	Labor_total_E	-	-	-	-	-
260	Total		15,494	9,532	1,571	2,038	2,352
261							

	A	B	C	D	E	F	G
1	<u>Liberty Utilities - Iowa</u>						
2	Allocation of Gross Plant	Allocation	Total	Residential	Commercial	Commercial	Industrial
3		Factor	Company	GR-310	Small	Medium	Interruptible
4					GC-320/330(a)	GC-320/330(b)	GC-340/350
262	392.1 - Transportation equip < 12 Lbs.		158,900				
263	- Demand	Labor_total_D	75,716	32,078	6,723	12,998	23,917
264	- Customer	Labor_total_C	83,184	65,676	9,392	7,907	209
265	- Commodity	Labor_total_E	-	-	-	-	-
266	Total		158,900	97,754	16,115	20,905	24,126
267							
268	393 - Stores Equipment		-				
269	- Demand		-				
270	- Customer		-				
271	- Commodity		-				
272	Total		-	-	-	-	-
273							
274	394 - Tools, shop and garage equip		12,082				
275	- Demand	Plant_P/T/D_D	5,738	2,414	509	991	1,824
276	- Customer	Plant_P/T/D_C	6,344	4,911	742	684	8
277	- Commodity	Plant_P/T/D_E	-	-	-	-	-
278	Total		12,082	7,324	1,252	1,675	1,832
279							
280	395 - Laboratory Equipment		-				
281	- Demand		-				
282	- Customer		-				
283	- Commodity		-				
284	Total		-	-	-	-	-
285							
286	396 - Power operated equip		37,745				
287	- Demand	Labor_total_D	17,986	7,620	1,597	3,087	5,681
288	- Customer	Labor_total_C	19,759	15,601	2,231	1,878	50
289	- Commodity	Labor_total_E	-	-	-	-	-
290	Total		37,745	23,221	3,828	4,966	5,731
291							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Gross Plant	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
292	397 - Communications equip		5,113				
293	- Demand	Labor_total_D	2,436	1,032	216	418	770
294	- Customer	Labor_total_C	2,676	2,113	302	254	7
295	- Commodity	Labor_total_E	-	-	-	-	-
296	Total		5,113	3,145	518	673	776
297							
298	398 - Misc equip		53,958				
299	- Demand	Labor_total_D	25,711	10,893	2,283	4,414	8,122
300	- Customer	Labor_total_C	28,247	22,302	3,189	2,685	71
301	- Commodity	Labor_total_E	-	-	-	-	-
302	Total		53,958	33,195	5,472	7,099	8,193
303							
304	399 - Other Tangible Equipment		1,161,579				
305	- Demand	Labor_total_D	553,496	234,497	49,145	95,014	174,840
306	- Customer	Labor_total_C	608,083	480,100	68,654	57,804	1,525
307	- Commodity	Labor_total_E	-	-	-	-	-
308	Total		1,161,579	714,597	117,800	152,818	176,365
309							
310	Total General Plant						
311	- Demand		1,071,031	453,741	95,097	183,861	338,332
312	- Customer		1,176,699	928,941	132,879	111,936	2,943
313	- Commodity		-	-	-	-	-
314	Total		2,247,730	1,382,682	227,976	295,797	341,274
315							
316	Total Utility Plant						
317	- Demand		7,499,305	3,157,664	665,504	1,293,842	2,382,294
318	- Customer		8,284,216	6,430,180	964,672	878,016	11,348
319	- Commodity		-	-	-	-	-
320	Total		15,783,521	9,587,844	1,630,176	2,171,858	2,393,643

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Gross Plant	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
321							
322	Plant_Total_D		47.51%	20.01%	4.22%	8.20%	15.09%
323	Plant_Total_C		52.49%	40.74%	6.11%	5.56%	0.07%
324	Plant_Total_E		0.00%	0.00%	0.00%	0.00%	0.00%
325	Total		100.00%	60.75%	10.33%	13.76%	15.17%
326							
327	Total						
328	Intangible Plant		40,637	24,633	4,210	5,632	6,162
329	Production Plant		-	-	-	-	-
330	Transmission Plant		1,585,261	666,808	140,667	273,730	504,057
331	Distribution Plant		11,909,893	7,513,721	1,257,323	1,596,699	1,542,150
332	General Plant		2,247,730	1,382,682	227,976	295,797	341,274
333							
334	Total Plant		15,783,521	9,587,844	1,630,176	2,171,858	2,393,643
335							
336	Plant 366-370						
337	Plant_366-370_D_INPUT		1,419,083	596,908	125,921	245,035	451,218
338	Plant_366-370_C_INPUT		-	-	-	-	-
339	Plant_366-370_E_INPUT		-	-	-	-	-
340	Total		1,419,083	596,908	125,921	245,035	451,218
341							
342	Plant_366-370_D_INPUT		100.00%	42.06%	8.87%	17.27%	31.80%
343	Plant_366-370_C_INPUT		0.00%	0.00%	0.00%	0.00%	0.00%
344	Plant_366-370_E_INPUT		0.00%	0.00%	0.00%	0.00%	0.00%
345	Total		100.00%	42.06%	8.87%	17.27%	31.80%
346							

Liberty Utilities (Midstates Natural Gas)

Cost of Service Study

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Allocation of Gross Plant	Allocation	Total	Residential	Small	Medium	Interruptible
3		Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
347	Plant 375-386						
348	Plant_375-386_D		4,791,583	2,015,482	425,177	827,371	1,523,553
349	Plant_375-386_C		7,038,979	5,448,190	823,771	758,693	8,325
350	Plant_375-386_E		-	-	-	-	-
351	Total		11,830,562	7,463,673	1,248,949	1,586,063	1,531,878
352							
353	Plant_375-386_D		40.50%	17.04%	3.59%	6.99%	12.88%
354	Plant_375-386_C		59.50%	46.05%	6.96%	6.41%	0.07%
355	Plant_375-386_E		0.00%	0.00%	0.00%	0.00%	0.00%
356	Total		100.00%	63.09%	10.56%	13.41%	12.95%
357							
358	Plant P/T/D						
359	Plant_P/T/D_D		6,408,975	2,695,806	568,695	1,106,648	2,037,826
360	Plant_P/T/D_C		7,086,179	5,484,724	829,295	763,780	8,380
361	Plant_P/T/D_E		-	-	-	-	-
362	Total		13,495,155	8,180,529	1,397,990	1,870,428	2,046,207
363							
364	Plant_P/T/D_D		47.49%	19.98%	4.21%	8.20%	15.10%
365	Plant_P/T/D_C		52.51%	40.64%	6.15%	5.66%	0.06%
366	Plant_P/T/D_E		0.00%	0.00%	0.00%	0.00%	0.00%
367	Total		100.00%	60.62%	10.36%	13.86%	15.16%
368							
369	Plant General						
370	Plant_General_D		1,071,031	453,741	95,097	183,861	338,332
371	Plant_General_C		1,176,699	928,941	132,879	111,936	2,943
372	Plant_General_E		-	-	-	-	-
373	Total		2,247,730	1,382,682	227,976	295,797	341,274
374							
375	Plant_General_D		47.65%	20.19%	4.23%	8.18%	15.05%
376	Plant_General_C		52.35%	41.33%	5.91%	4.98%	0.13%
377	Plant_General_E		0.00%	0.00%	0.00%	0.00%	0.00%
378	Total		100.00%	61.51%	10.14%	13.16%	15.18%

	A	B	C	D	E	F	G
1	<u>Liberty Utilities - Iowa</u>				Commercial	Commercial	Industrial
2	Derivation of	Allocation	Total	Residential	Small	Medium	Interruptible
3	Labor Allocators	Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
5	Production Expenses						
6	<u>717 - LPG Expense Maintenance</u>		-				
7	- Demand		-				
8	- Customer		-				
9	- Commodity		-				
10	Total		-	-	-	-	-
11							
12	<u>742 - Maintenance of production equip</u>		-				
13	- Demand		-				
14	- Customer		-				
15	- Commodity		-				
16	Total		-	-	-	-	-
17							
18	<u>804 - Natural Gas City Gate Purchases</u>		-				
19	- Demand		-				
20	- Customer		-				
21	- Commodity		-				
22	Total		-	-	-	-	-
23							
24	<u>Total Production Expense</u>						
25	- Demand		-	-	-	-	-
26	- Customer		-	-	-	-	-
27	- Commodity		-	-	-	-	-
28	Total		-	-	-	-	-
29							
30	Transmission Expenses						
31							
32	Operations Expenses						
33							
34	<u>850 - Supervision & Engineering</u>		-				
35	- Demand		-				
36	- Customer		-				
37	- Commodity		-				
38	Total		-	-	-	-	-
39							
40	<u>851 - Load Dispatching</u>		-				
41	- Demand		-				
42	- Customer		-				
43	- Commodity		-				
44	Total		-	-	-	-	-
45							

	A	B	C	D	E	F	G
1	<u>Liberty Utilities - Iowa</u>				Commercial	Commercial	Industrial
2	Derivation of	Allocation	Total	Residential	Small	Medium	Interruptible
3	Labor Allocators	Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
46	<u>852 - Communication System Expenses</u>		-				
47	- Demand		-				
48	- Customer		-				
49	- Commodity		-				
50	Total		-	-	-	-	-
51							
52	<u>856 - Mains Expenses</u>		-				
53	- Demand		-				
54	- Customer		-				
55	- Commodity		-				
56	Total		-	-	-	-	-
57							
58	<u>857 - Measuring and Regulating Expenses</u>		-				
59	- Demand		-				
60	- Customer		-				
61	- Commodity		-				
62	Total		-	-	-	-	-
63							
64	<u>858 - Transmission & Compression by other</u>		-				
65	- Demand		-				
66	- Customer		-				
67	- Commodity		-				
68	Total		-	-	-	-	-
69							
70	<u>859 - Other expenses</u>		-				
71	- Demand		-				
72	- Customer		-				
73	- Commodity		-				
74	Total		-	-	-	-	-
75							
76	<u>860 - Rents</u>		-				
77	- Demand		-				
78	- Customer		-				
79	- Commodity		-				
80	Total		-	-	-	-	-
81							
82	<u>Total Operations Expense</u>		-				
83	- Demand		-	-	-	-	-
84	- Customer		-	-	-	-	-
85	- Commodity		-	-	-	-	-
86	Total Operations Expense		-	-	-	-	-
87							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Derivation of	Allocation	Total	Residential	Small	Medium	Interruptible
3	Labor Allocators	Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
88	Maintenance Expense						
89							
90	861 - Supervision		-				
91	- Demand		-				
92	- Customer		-				
93	- Commodity		-				
94	Total		-	-	-	-	-
95							
96	862 - Maintenance Structure & Improve		-				
97	- Demand		-				
98	- Customer		-				
99	- Commodity		-				
100	Total		-	-	-	-	-
101							
102	863 - Maintenance of Mains		-				
103	- Demand		-				
104	- Customer		-				
105	- Commodity		-				
106	Total		-	-	-	-	-
107							
108	864 - Maintenance of Compressor Station		-				
109	- Demand		-				
110	- Customer		-				
111	- Commodity		-				
112	Total		-	-	-	-	-
113							
114	865 - Maintenance of M&R station		-				
115	- Demand		-				
116	- Customer		-				
117	- Commodity		-				
118	Total		-	-	-	-	-
119							
120	866 - Maintenance of Communication Equipment		-				
121	- Demand		-				
122	- Customer		-				
123	- Commodity		-				
124	Total		-	-	-	-	-
125							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Derivation of	Allocation	Total	Residential	Small	Medium	Interruptible
3	Labor Allocators	Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
126	867 - Maintenance of Other Equipment		-				
127	- Demand		-				
128	- Customer		-				
129	- Commodity		-				
130	Total		-	-	-	-	-
131							
132	Total Maintenance Expense						
133	- Demand		-	-	-	-	-
134	- Customer		-	-	-	-	-
135	- Commodity		-	-	-	-	-
136	Total Maintenance Expense		-	-	-	-	-
137							
138	Total Transmission Expenses						
139	- Demand		-	-	-	-	-
140	- Customer		-	-	-	-	-
141	- Commodity		-	-	-	-	-
142	Total Transmission Expenses		-	-	-	-	-
143							
144	Distribution Expenses						
145							
146	Operations Expenses						
147							
148	870 - Supervision & Engineering		33,722				
149	- Demand	Labor_871-880_D	23,563	9,983	2,092	4,045	7,443
150	- Customer	Labor_871-880_C	10,159	6,524	1,421	2,165	49
151	- Commodity	Labor_871-880_E	-	-	-	-	-
152	Total		33,722	16,507	3,513	6,210	7,493
153							
154	871 - Distribution Load Dispatching		-				
155	- Demand		-				
156	- Customer		-				
157	- Commodity		-				
158	Total		-	-	-	-	-
159							
160	872 - Compressor Station Labor and Expenses		136,991				
161	- Demand	D2_peak&average	136,991	57,622	12,156	23,654	43,558
162	- Customer		-				
163	- Commodity		-				
164	Total		136,991	57,622	12,156	23,654	43,558
165							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Derivation of	Allocation	Total	Residential	Small	Medium	Interruptible
3	Labor Allocators	Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
166	874 - Mains & services expense		4,940				
167	- Demand	C6_mains&services	3,705	1,986	337	498	885
168	- Customer	C6_mains&services	1,235	662	112	166	295
169	- Commodity		-				
170	Total		4,940	2,648	449	664	1,180
171							
172	875 - Measurement & Reg - General		-				
173	- Demand		-				
174	- Customer		-				
175	- Commodity		-				
176	Total		-	-	-	-	-
177							
178	876 - Measurement & Reg - Industrial		-				
179	- Demand		-				
180	- Customer		-				
181	- Commodity		-				
182	Total		-	-	-	-	-
183							
184	877 - Measurement & Reg - City Gate		-				
185	- Demand		-				
186	- Customer		-				
187	- Commodity		-				
188	Total		-	-	-	-	-
189							
190	878 - Meter and House Regulator		59,426				
191	- Demand		-				
192	- Customer	C3_meters	59,426	38,292	8,374	12,760	-
193	- Commodity		-				
194	Total		59,426	38,292	8,374	12,760	-
195							
196	879 - Customer installation		-				
197	- Demand		-				
198	- Customer		-				
199	- Commodity		-				
200	Total		-	-	-	-	-
201							
202	880 - Other expenses		-				
203	- Demand		-				
204	- Customer		-				
205	- Commodity		-				
206	Total		-	-	-	-	-
207							

	A	B	C	D	E	F	G
1	<u>Liberty Utilities - Iowa</u>				Commercial	Commercial	Industrial
2	Derivation of	Allocation	Total	Residential	Small	Medium	Interruptible
3	Labor Allocators	Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
208	881 - Rents		-				
209	- Demand		-				
210	- Customer		-				
211	- Commodity		-				
212	Total		-	-	-	-	-
213							
214	Total Operations Expense						
215	- Demand		164,259	69,591	14,585	28,197	51,886
216	- Customer		70,821	45,478	9,908	15,091	344
217	- Commodity		-	-	-	-	-
218	Total Operations Expense		235,080	115,069	24,492	43,288	52,231
219							
220	Maintenance Expense						
221							
222	885 - Supervision		-				
223	- Demand		-				
224	- Customer		-				
225	- Commodity		-				
226	Total		-	-	-	-	-
227							
228	886 - Maintenance Structure & Improve		-				
229	- Demand		-				
230	- Customer		-				
231	- Commodity		-				
232	Total		-	-	-	-	-
233							
234	887 - Maintenance of Mains		62				
235	- Demand	D2_peak&average	62	26	6	11	20
236	- Customer		-				
237	- Commodity		-				
238	Total		62	26	6	11	20
239							
240	889 - Maintenance of M&R station - General		-				
241	- Demand		-				
242	- Customer		-				
243	- Commodity		-				
244	Total		-	-	-	-	-
245							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Derivation of	Allocation	Total	Residential	Small	Medium	Interruptible
3	Labor Allocators	Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
246	890 - Maintenance of M&R station - Industrial		-				
247	- Demand		-				
248	- Customer		-				
249	- Commodity		-				
250	Total		-	-	-	-	-
251							
252	891 - Maintenance of M&R station - City Gate		-				
253	- Demand		-				
254	- Customer		-				
255	- Commodity		-				
256	Total		-	-	-	-	-
257							
258	892 - Maintenance of Services		5,642				
259	- Demand		-				
260	- Customer	C5_services	5,642	4,976	549	109	9
261	- Commodity		-				
262	Total		5,642	4,976	549	109	9
263							
264	893 - Maintenance of Meter and House Reg		878				
265	- Demand		-				
266	- Customer	C3_meters	878	566	124	189	-
267	- Commodity		-				
268	Total		878	566	124	189	-
269							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Derivation of	Allocation	Total	Residential	Small	Medium	Interruptible
3	Labor Allocators	Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
270	894 - Maintenance of Other Equipment		-				
271	- Demand		-				
272	- Customer		-				
273	- Commodity		-				
274	Total		-	-	-	-	-
275							
276	Total Maintenance Expense						
277	- Demand		62	26	6	11	20
278	- Customer		6,521	5,542	673	297	9
279	- Commodity		-	-	-	-	-
280	Total Maintenance Expense		6,583	5,568	678	308	29
281							
282	Total Distribution Expenses						
283	- Demand		164,321	69,617	14,590	28,208	51,906
284	- Customer		77,342	51,019	10,581	15,388	353
285	- Commodity		-	-	-	-	-
286	Total Distribution Expenses		241,663	120,637	25,171	43,596	52,260
287							
288	Customer Service Expense						
289							
290	901 - Supervision		-				
291	- Demand		-				
292	- Customer		-				
293	- Commodity		-				
294	Total		-	-	-	-	-
295							
296	902 - Meter reading expense		8,409				
297	- Demand		-				
298	- Customer	C1_customers	8,409	7,458	799	144	8
299	- Commodity		-				
300	Total		8,409	7,458	799	144	8
301							
302	903 - Customer records & collections		94,776				
303	- Demand		-				
304	- Customer	C1_customers	94,776	84,054	9,003	1,628	91
305	- Commodity		-				
306	Total		94,776	84,054	9,003	1,628	91
307							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Derivation of	Allocation	Total	Residential	Small	Medium	Interruptible
3	Labor Allocators	Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
308	904 - Uncollectible expense		-				
309	- Demand		-				
310	- Customer		-				
311	- Commodity		-				
312	Total		-	-	-	-	-
313							
314	905 - Miscellaneous Customer Service		-				
315	- Demand		-				
316	- Customer		-				
317	- Commodity		-				
318	Total		-	-	-	-	-
319							
320	909 - Info & Inst Advertising		-				
321	- Demand		-				
322	- Customer		-				
323	- Commodity		-				
324	Total		-	-	-	-	-
325							
326	Total Customer Service Expense						
327	- Demand		-	-	-	-	-
328	- Customer		103,185	91,512	9,801	1,772	99
329	- Commodity		-	-	-	-	-
330	Total		103,185	91,512	9,801	1,772	99
331							
332	Sales Expense						
333	912 - Demonstration and selling		-				
334	- Demand		-				
335	- Customer		-				
336	- Commodity		-				
337	Total		-	-	-	-	-
338							
339	913 - Advertising		-				
340	- Demand		-				
341	- Customer		-				
342	- Commodity		-				
343	Total		-	-	-	-	-
344							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Derivation of	Allocation	Total	Residential	Small	Medium	Interruptible
3	Labor Allocators	Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
345	916 - Misc Sales Expense		-				
346	- Demand		-				
347	- Customer		-				
348	- Commodity		-				
349	Total		-	-	-	-	-
350							
351							
352	Total Sales Expense						
353	- Demand		-	-	-	-	-
354	- Customer		-	-	-	-	-
355	- Commodity		-	-	-	-	-
356	Total Sales Expense		-	-	-	-	-
357							
358	Administrative & General Expense						
359	Operations						
360	920 - A&G Salaries		134,598				
361	- Demand	Labor_xAG_D	64,137	27,172	5,695	11,010	20,260
362	- Customer	Labor_xAG_C	70,462	55,632	7,955	6,698	177
363	- Commodity	Labor_xAG_E	-	-	-	-	-
364	Total		134,598	82,804	13,650	17,708	20,436
365							
366	921 - Office supplies		-				
367	- Demand		-				
368	- Customer		-				
369	- Commodity		-				
370	Total		-	-	-	-	-
371							
372	922 - Administrative Expense Transfer		(15,285)				
373	- Demand	Labor_xAG_D	(7,283)	(3,086)	(647)	(1,250)	(2,301)
374	- Customer	Labor_xAG_C	(8,001)	(6,317)	(903)	(761)	(20)
375	- Commodity	Labor_xAG_E	-	-	-	-	-
376	Total		(15,285)	(9,403)	(1,550)	(2,011)	(2,321)
377							
378	923 - Outside services employed		-				
379	- Demand		-				
380	- Customer		-				
381	- Commodity		-				
382	Total		-	-	-	-	-
383							
384	924 - Property insurance		-				
385	- Demand		-				
386	- Customer		-				
387	- Commodity		-				
388	Total		-	-	-	-	-
389							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Derivation of	Allocation	Total	Residential	Small	Medium	Interruptible
3	Labor Allocators	Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
390	925 - Injuries and damages		-				
391	- Demand		-				
392	- Customer		-				
393	- Commodity		-				
394	Total		-	-	-	-	-
395							
396	926 - Employed pensions & benefits		161,785				
397	- Demand	Labor_xAG_D	77,091	32,661	6,845	13,234	24,352
398	- Customer	Labor_xAG_C	84,694	66,868	9,562	8,051	212
399	- Commodity	Labor_xAG_E	-	-	-	-	-
400	Total		161,785	99,529	16,407	21,284	24,564
401							
402	928 - Regulatory commission expense		-				
403	- Demand		-				
404	- Customer		-				
405	- Commodity		-				
406	Total		-	-	-	-	-
407							
408	930.01 - General advertising		-				
409	- Demand		-				
410	- Customer		-				
411	- Commodity		-				
412	Total		-	-	-	-	-
413							
414	930.02 - Misc. General expense		-				
415	- Demand		-				
416	- Customer		-				
417	- Commodity		-				
418	Total		-	-	-	-	-
419							
420	931 - Rents		-				
421	- Demand		-				
422	- Customer		-				
423	- Commodity		-				
424	Total		-	-	-	-	-
425							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Derivation of	Allocation	Total	Residential	Small	Medium	Interruptible
3	Labor Allocators	Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
426	Maintenance						
427	932 - Maintenance of general plant		-				
428	- Demand		-				
429	- Customer		-				
430	- Commodity		-				
431	Total		-	-	-	-	-
432							
433	Labor A&G						
434	- Demand		133,944	56,748	11,893	22,993	42,311
435	- Customer		147,154	116,183	16,614	13,988	369
436	- Commodity		-	-	-	-	-
437	Total A&G		281,098	172,930	28,507	36,981	42,680
438							
439	LABOR TT						
440	- Demand		298,265	126,365	26,483	51,201	94,217
441	- Customer		327,681	258,714	36,996	31,149	822
442	- Commodity		-	-	-	-	-
443	Total		625,947	385,079	63,479	82,350	95,039
444							
445	Labor_Total_D		47.65%	20.19%	4.23%	8.18%	15.05%
446	Labor_Total_C		52.35%	41.33%	5.91%	4.98%	0.13%
447	Labor_Total_E		0.00%	0.00%	0.00%	0.00%	0.00%
448	Total		100.00%	61.52%	10.14%	13.16%	15.18%
449							
450	Labor_871-880						
451	Labor_871-880_D		140,696	59,608	12,492	24,152	44,443
452	Labor_871-880_C		60,662	38,954	8,487	12,926	295
453	Labor_871-880_E		-	-	-	-	-
454	Total		201,358	98,562	20,979	37,078	44,738
455							
456	Labor_871-880_D		69.87%	29.60%	6.20%	11.99%	22.07%
457	Labor_871-880_C		30.13%	19.35%	4.21%	6.42%	0.15%
458	Labor_871-880_E		0.00%	0.00%	0.00%	0.00%	0.00%
459	Total		100.00%	48.95%	10.42%	18.41%	22.22%
460							
461	Labor_P/T/D						
462	Labor_P/T/D_D		164,321	69,617	14,590	28,208	51,906
463	Labor_P/T/D_C		77,342	51,019	10,581	15,388	353
464	Labor_P/T/D_E		-	-	-	-	-
465	Total		241,663	120,637	25,171	43,596	52,260
466							
467	Labor_P/T/D_D		68.00%	28.81%	6.04%	11.67%	21.48%
468	Labor_P/T/D_C		32.00%	21.11%	4.38%	6.37%	0.15%
469	Labor_P/T/D_E		0.00%	0.00%	0.00%	0.00%	0.00%
470	Total		100.00%	49.92%	10.42%	18.04%	21.62%
471							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Derivation of	Allocation	Total	Residential	Small	Medium	Interruptible
3	Labor Allocators	Factor	Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
472	Labor_xA&G						
473	Labor_xAG_D		164,321	69,617	14,590	28,208	51,906
474	Labor_xAG_C		180,527	142,531	20,382	17,161	453
475	Labor_xAG_E		-	-	-	-	-
476	Total		344,848	212,149	34,972	45,368	52,359
477							
478	Labor_xAG_D		47.65%	20.19%	4.23%	8.18%	15.05%
479	Labor_xAG_C		52.35%	41.33%	5.91%	4.98%	0.13%
480	Labor_xAG_E		0.00%	0.00%	0.00%	0.00%	0.00%
481	Total		100.00%	61.52%	10.14%	13.16%	15.18%

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Summary of Allocators		Total	Residential	Small	Medium	Interruptible
3	Description		Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
5	External Allocators						
6							
7	C1_customers		100.00%	88.69%	9.50%	1.72%	0.10%
8	C2_firmcustomers		100.00%	88.77%	9.51%	1.72%	0.00%
9	C3_meters		100.00%	64.44%	14.09%	21.47%	0.00%
10	C4_industrialmeters		100.00%	0.00%	0.00%	0.00%	100.00%
11	C5_services		100.00%	88.18%	9.73%	1.93%	0.16%
12	C6_mains&services		100.00%	53.59%	9.09%	13.43%	23.89%
13	D1_sales		100.00%	58.09%	12.01%	29.90%	0.00%
14	D2_peak&average		100.00%	42.06%	8.87%	17.27%	31.80%
15	D3_firmdemand		100.00%	63.29%	13.46%	23.25%	0.00%
16	D4_totalrevenues		100.00%	59.25%	10.95%	21.04%	8.77%
17	D5_deliveryrevenues		100.00%	59.14%	10.69%	12.68%	17.49%
18	D6_rescomrevenues		100.00%	64.94%	12.00%	23.06%	0.00%
19	D7_throughput		100.00%	23.23%	4.80%	11.96%	60.00%
20							
21	Internal Allocators						
22							
23	Plant_366-370_D		100.00%	42.06%	8.87%	17.27%	31.80%
24	Plant_366-370_C		0.00%	0.00%	0.00%	0.00%	0.00%
25	Plant_366-370_E		0.00%	0.00%	0.00%	0.00%	0.00%
26							
27	Plant_375-386_D		40.50%	17.04%	3.59%	6.99%	12.88%
28	Plant_375-386_C		59.50%	46.05%	6.96%	6.41%	0.07%
29	Plant_375-386_E		0.00%	0.00%	0.00%	0.00%	0.00%
30							
31	Plant_P/T/D_D		47.49%	19.98%	4.21%	8.20%	15.10%
32	Plant_P/T/D_C		52.51%	40.64%	6.15%	5.66%	0.06%
33	Plant_P/T/D_E		0.00%	0.00%	0.00%	0.00%	0.00%
34							
35	Plant_General_D		47.65%	20.19%	4.23%	8.18%	15.05%
36	Plant_General_C		52.35%	41.33%	5.91%	4.98%	0.13%
37	Plant_General_E		0.00%	0.00%	0.00%	0.00%	0.00%
38							
39	Plant_Total_D		47.51%	20.01%	4.22%	8.20%	15.09%
40	Plant_Total_C		52.49%	40.74%	6.11%	5.56%	0.07%
41	Plant_Total_E		0.00%	0.00%	0.00%	0.00%	0.00%
42							
43	Labor_871-880_D		69.87%	29.60%	6.20%	11.99%	22.07%
44	Labor_871-880_C		30.13%	19.35%	4.21%	6.42%	0.15%
45	Labor_871-880_E		0.00%	0.00%	0.00%	0.00%	0.00%
46							
47	Labor_xAG_D		47.65%	20.19%	4.23%	8.18%	15.05%
48	Labor_xAG_C		52.35%	41.33%	5.91%	4.98%	0.13%
49	Labor_xAG_E		0.00%	0.00%	0.00%	0.00%	0.00%

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa				Commercial	Commercial	Industrial
2	Summary of Allocators		Total	Residential	Small	Medium	Interruptible
3	Description		Company	GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
4							
50							
51	Labor_total_D		47.65%	20.19%	4.23%	8.18%	15.05%
52	Labor_total_C		52.35%	41.33%	5.91%	4.98%	0.13%
53	Labor_total_E		0.00%	0.00%	0.00%	0.00%	0.00%
54							
55	Labor_P/T/D_D		68.00%	28.81%	6.04%	11.67%	21.48%
56	Labor_P/T/D_C		32.00%	21.11%	4.38%	6.37%	0.15%
57	Labor_P/T/D_E		0.00%	0.00%	0.00%	0.00%	0.00%
58							
59	EXP_871-880_D		78.79%	33.29%	6.99%	13.56%	24.95%
60	EXP_871-880_C		21.21%	13.62%	2.97%	4.52%	0.10%
61	EXP_871-880_E		0.00%	0.00%	0.00%	0.00%	0.00%
62							
63	EXP_Total_D		53.81%	20.34%	4.23%	8.49%	20.76%
64	EXP_Total_C		46.19%	36.03%	5.14%	4.57%	0.45%
65	EXP_Total_E		0.00%	0.00%	0.00%	0.00%	0.00%
66							
67	Rate Base_D		50.62%	22.84%	4.82%	9.15%	13.81%
68	Rate Base_C		49.38%	34.15%	6.53%	8.69%	0.02%
69	Rate Base_E		0.00%	0.00%	0.00%	0.00%	0.00%
70	Rate Base_Total		100.00%	56.99%	11.34%	17.84%	13.83%
71							
72	Derivation External Allocators						
73	C1_customers_INPUT		4,155	3,685	395	71	4
74			100.00%	88.69%	9.50%	1.72%	0.10%
75							
76	C2_firmcustomers_INPUT		4,151	3,685	395	71	-
77			100.00%	88.77%	9.51%	1.72%	0.00%
78							
79	C3_meters_INPUT		100.00%	64.44%	14.09%	21.47%	0.00%
80			100.00%	64.44%	14.09%	21.47%	0.00%
81							
82	C4_industrialmeters_INPUT		100.00%	0.00%	0.00%	0.00%	100.00%
83			100.00%	0.00%	0.00%	0.00%	100.00%
84							
85	C5_services_INPUT		100.00%	88.18%	9.73%	1.93%	0.16%
86			100.00%	88.18%	9.73%	1.93%	0.16%
87							
88	D1_sales_INPUT		4,895,254	2,843,786	587,894	1,463,575	-
89			100.00%	58.09%	12.01%	29.90%	0.00%
90							
91	D2_peak&average_INPUT		100.00%	42.06%	8.87%	17.27%	31.80%
92			100.00%	42.06%	8.87%	17.27%	31.80%
93							

	A	B	C	D	E	F	G
1	Liberty Utilities - Iowa						Commercial
2	Summary of Allocators						Small
3	Description		Total	Residential	Commercial	Commercial	Industrial
4			Company	GR-310	GC-320/330(a)	Medium	Interruptible
						GC-320/330(b)	GC-340/350
94	D3_firmdemand_INPUT		<u>100.00%</u>	<u>63.29%</u>	<u>13.46%</u>	<u>23.25%</u>	<u>0.00%</u>
95			100.00%	63.29%	13.46%	23.25%	0.00%
96							
97	D4_totalrevenues_INPUT		<u>3,916,564</u>	<u>2,320,383</u>	<u>428,778</u>	<u>823,924</u>	<u>343,478</u>
98			100.00%	59.25%	10.95%	21.04%	8.77%
99							
100	D5_deliveryrevenues_INPUT		<u>1,748,707</u>	<u>1,034,251</u>	<u>186,869</u>	<u>221,685</u>	<u>305,902</u>
101			100.00%	59.14%	10.69%	12.68%	17.49%
102							
103	D6_rescomrevenues_INPUT		<u>3,573,086</u>	<u>2,320,383</u>	<u>428,778</u>	<u>823,924</u>	<u>-</u>
104			100.00%	64.94%	12.00%	23.06%	0.00%
105							
106	D7_throughput_INPUT		<u>12,239,554</u>	<u>2,843,786</u>	<u>587,894</u>	<u>1,463,575</u>	<u>7,344,300</u>
107			100.00%	23.23%	4.80%	11.96%	60.00%
108							
109	Mains and Services Allocator						
110	Mains (376)						
111	Gross Plant		4,279,796	1,800,210	379,764	738,999	1,360,823
112	Acc Depreciation		<u>3,600,025</u>	<u>1,514,277</u>	<u>319,445</u>	<u>621,622</u>	<u>1,144,680</u>
113	Net Plant		679,772	285,932	60,319	117,377	216,143
114							
115	Services (380)						
116	Gross Plant		3,848,542	3,393,833	374,492	74,102	6,114
117	Acc Depreciation		<u>3,829,988</u>	<u>3,377,472</u>	<u>372,687</u>	<u>73,745</u>	<u>6,085</u>
118	Net Plant		18,554	16,362	1,805	357	29
119							
120	Total Gross Plant		8,128,338	5,194,043	754,256	813,102	1,366,937
121	Total Net Plant		698,326	302,294	62,124	117,735	216,173
122							
123	Weighted on gross plant		100.00%	63.9%	9.3%	10.0%	16.8%
124	Weighted on net plant		<u>100.00%</u>	<u>43.3%</u>	<u>8.9%</u>	<u>16.9%</u>	<u>31.0%</u>
125							
126	Average of gross and net plant		100.00%	53.6%	9.1%	13.4%	23.9%
127							
128			52.7%				
129			<u>97.3%</u>				
130			75.0%				

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Demand Allocator

Average and Peak Methodology

Liberty Utilities - Iowa		Commercial		Commercial		Industrial	
Development of Demand Allocator		Total	Residential	Small	Medium	Interruptible	
		Company	GR-310	iC-320/330(a)	iC-320/330(b)	GC-340/350	
Multiple R-Square			98%	96%	97%		
Heat use per DD (coefficient)			0.121	0.243	2.150		
Heat use at Design Day DD	85		10.278	20.626	182.770		
Base use at Design Day			0.303	0.507	21.856		
Total use at Design Day			10.581	21.133	204.625		
Design Day Customers		4,260	3,785	403	72		
Design Day Use		63,282	40,049	8,519	14,714		
Design Day Use (%)		100.00%	63.29%	13.46%	23.25%		
Annual Throughput (therms)		12,239,554	2,843,786	587,894	1,463,575	7,344,300	
Average Daily Use	365	33,533	7,791	1,611	4,010	20,121	
Design Day Use		63,282					
Load Factor		53%					
Average Daily Use (%)		100.00%	23.23%	4.80%	11.96%	60.00%	
Design Day Use (%)		100.00%	63.29%	13.46%	23.25%	0.00%	
Average and Peak Allocator (%)		100.00%	42.06%	8.87%	17.27%	31.80%	

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Workpapers

Liberty Utilities - Iowa														
Actual Use														
Rate Class	Jan'15	Feb	Mar	Apr	May'15	Jun'14	Jul	Aug	Sep	Oct	Nov	Dec'14	Total	
Actual Use (therms)														
Residential	636,178	571,577	542,659	235,096	87,499	50,275	33,875	32,631	35,873	67,659	213,308	500,692	3,007,323	
Commercial	342,273	387,400	320,971	147,235	120,783	54,467	52,588	58,170	57,459	81,430	170,099	337,880	2,130,755	
Industrial	990,990	908,020	846,150	612,530	605,440	619,900	526,837	597,350	624,300	703,138	824,220	901,910	8,760,785	
Small Commercial	125,076	131,107	132,133	46,273	13,808	7,661	6,383	6,170	5,988	9,231	34,773	94,135	612,740	
Medium Commercial	217,197	256,293	188,839	100,962	106,975	46,806	46,205	52,000	51,471	72,199	135,326	243,745	1,518,016	
Actual Customers														
Residential	3,785	3,768	3,803	3,753	3,687	3,655	3,620	3,581	3,561	3,581	3,685	3,736	3,685	
Commercial	475	475	478	465	468	463	460	457	458	457	466	470	466	
Industrial	5	5	5	5	5	5	5	5	5	5	5	5	5	
Small Commercial	403	399	407	397	395	389	385	384	405	383	391	397	395	
Medium Commercial	72	76	71	68	73	74	75	73	53	74	75	73	71	
Use per customer														
Residential	168	152	143	63	24	14	9	9	10	19	58	134	67	
Commercial	721	816	671	317	258	118	114	127	125	178	365	719	377	
Industrial	198,198	181,604	169,230	122,506	121,088	123,980	105,367	119,470	124,860	140,628	164,844	180,382	146,013	
Small Commercial	310	328	325	117	35	20	17	16	15	24	89	237	128	
Medium Commercial	3,020	3,379	2,664	1,485	1,471	629	620	710	967	973	1,816	3,339	1,756	
Base Use per customer														
Residential	9													
Commercial	121													
Industrial	112,419													
Small Commercial	15													
Medium Commercial	665													
Heat Use per customer														
Residential	159	142	133	53	14	5	0	0	1	10	49	125		
Commercial	600	695	551	196	137	0	0	6	5	57	244	598		
Industrial	85,779	69,185	56,811	10,087	8,669	11,561	0	7,051	12,441	28,209	52,425	67,963		
Small Commercial	295	313	309	101	19	4	1	1	0	9	73	222		Year
Medium Commercial	2,355	2,714	1,999	820	806	0	0	45	302	308	1,151	2,674		112
Actual Billing Degree Days [From weather normalization]	1,121	1,256	1,049	557	219	78	6	4	45	210	619	953	6,115	

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Residential								
SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0.987618922							
R Square	0.975391135							
Adjusted R Square	-1.090909091							
Standard Error	13.74522326							
Observations	1							
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	12	82372.73771	6864.394809	435.9933885	#NUM!			
Residual	11	2078.242787	188.9311624					
Total	23	84450.98049						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept							0	0
X Variable 1							0	-2.7535E-308
X Variable 2							0	0
X Variable 3							0	0
X Variable 4							-4.7783E-299	-4.7783E-299
X Variable 5							4.2566E-302	4.257E-302
X Variable 6							-3.1835E-307	3.1835E-307
X Variable 7							-3.0365E-306	3.0365E-306
X Variable 8							-1479.062028	1479.062028
X Variable 9							-2.9386E-306	2.9386E-306
X Variable 10							-5.2609E-270	-5.2609E-270
X Variable 11	0	#N/A	0	1	-8.1768E-27	8.1768E-27	-8.1768E-27	8.1768E-27
X Variable 12	0.120912443	0.0057907	20.8804547	3.36482E-10	0.108167199	0.133657687	0.108167199	0.133657687
Small Commercial								
SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0.979620135							
R Square	0.959655609							
Adjusted R Square	-1.090909091							
Standard Error	35.60862907							
Observations	1							
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	12	331768.7184	27647.3932	261.6525236	#NUM!			
Residual	11	13947.71911	1267.974464					
Total	23	345716.4375						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept							-8564.068734	8564.068734
X Variable 1							-2.2564E-260	-2.2564E-260
X Variable 2							11	11
X Variable 3							261.6525236	261.6525236
X Variable 4							-3.9182E-306	3.9182E-306
X Variable 5							-2.28E-306	3.7931E-306
X Variable 6							-1.1287E-306	1.418E-306
X Variable 7							1.1714E-306	1.5877E-306
X Variable 8							4.716E-197	4.716E-197
X Variable 9							4.716E-197	4.716E-197
X Variable 10							6.309E-270	-1.6809E-269
X Variable 11	0	#N/A	0	1	-4.7017E-306	4.7017E-306	-4.7017E-306	4.7017E-306
X Variable 12	0.242659313	0.015001494	16.17567691	5.13738E-09	0.209641248	0.275677377	0.209641248	0.275677377

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Medium Commercial								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.984255448							
R Square	0.968758786							
Adjusted R Square	-1.090909091							
Standard Error	276.3540621							
Observations	1							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	12	26050265.27	2170855.439	341.0989989	#NUM!			
Residual	11	840087.2442	76371.56766					
Total	23	26890352.52						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept							-2.1913E-306	4.8615E-306
X Variable 1							1.1486E-269	-1.1486E-269
X Variable 2							-2.5655E-306	6.8378E-306
X Variable 3							-1.1224E-306	2.9916E-306
X Variable 4							-1.0021E-307	2.671E-307
X Variable 5							-2.138E-306	5.6984E-306
X Variable 6							-3.1835E-307	3.1835E-307
X Variable 7							-2.992E-306	3.081E-306
X Variable 8							1.7514E-146	1.7514E-146
X Variable 9							1.5749E-306	1.6295E-306
X Variable 10							1.1477E-269	-1.1477E-269
X Variable 11	0	#N/A	0	1	-4.7017E-306	4.7017E-306	-4.7017E-306	4.7017E-306
X Variable 12	2.150231999	0.116424692	18.46886566	1.25375E-09	1.893982979	2.406481018	1.893982979	2.406481018

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Derivation of Meter, Meter Installation and Services Allocator

Liberty Utilities - Iowa				Commercial	Commercial	Industrial
Development of Meter, Meter Installation and Service Allocator	Cost per Service	Total Company	Residential GR-310	Small iC-320/330(a)	Medium iC-320/330(b)	Interruptible GC-340/350
Number of meters (Year end)		4,423	3,915	432	76	-
Breakdown of meters		4,423	3,915	432	76	-
AM-250B-6	\$ 233.32		-	1		-
AM--4	176.04		1	-		
AM-AC-250-4	176.04		3,362	258		
AM-AC-630-4	1,374.66		4	24		
AM-AL-1000-5	1,793.76		-	5	49	
AM-AL-1400-5	4,660.64		-		14	
AM-AL-175-4	168.40		1	17		
AM-AL-2300-5	6,505.44		-		3	
AM-AL-2300-6	6,505.44		-		-	
AM-AL-250-4	176.04		25	1		
AM-AL-425-4	296.04		55	73		
AM-AL-5000-5	8,550.06		-		5	
AM-AL-800-5	2,108.64		1	12		
DR-11M-5	6,800.56		-		1	-
DR-16M-6	8,617.38		-		1	-
DR-3M-5	4,158.10		-		1	-
DR-7M-5	5,891.58		-		2	-
IT-METRIS-4	148.02		-	1		
LA-L-250-4	195.38		9	-		
SE-R-250-4	184.32		1	-		
SE-R-275-4	251.26		449	24		
SE-R-415-4	754.02		7	11		
SE-R-750-5	1,982.02		-	5		
Cost of meters		\$ 1,149,235	\$ 740,518	\$ 161,948	\$ 246,769	\$ -
Cost per meter			\$ 189.15	\$ 374.88	\$ 3,246.96	\$ -
Cost allocation - w/o Contract		100.00%	64.44%	14.09%	21.47%	0.00%

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Development of Meter, Meter Installation and Service Allocator	Cost per Service	Total Company	Residential GR-310	Small iC-320/330(a)	Medium iC-320/330(b)	Interruptible GC-340/350
Average meters per service			1.05	1.05	1.00	1.00
Breakdown of services		4,220	3,729	411	76	4
AM-250B-6	\$ 842.00		-	1	-	-
AM--4	842.00		1	-	-	-
AM-AC-250-4	842.00		3,202	246	-	-
AM-AC-630-4	842.00		4	23	-	-
AM-AL-1000-5	842.00		-	5	49	-
AM-AL-1400-5	842.00		-	-	14	-
AM-AL-175-4	842.00		1	16	-	-
AM-AL-2300-5	1,094.00		-	-	3	-
AM-AL-2300-6	1,094.00		-	-	-	-
AM-AL-250-4	842.00		24	1	-	-
AM-AL-425-4	842.00		52	70	-	-
AM-AL-5000-5	1,094.00		-	-	5	-
AM-AL-800-5	842.00		1	11	-	-
DR-11M-5	1,734.00		-	-	1	1
DR-16M-6	1,734.00		-	-	1	1
DR-3M-5	1,094.00		-	-	1	1
DR-7M-5	1,094.00		-	-	2	1
IT-METRIS-4	842.00		-	1	-	-
LA-L-250-4	842.00		9	-	-	-
SE-R-250-4	842.00		1	-	-	-
SE-R-275-4	842.00		428	23	-	-
SE-R-415-4	842.00		7	10	-	-
SE-R-750-5	842.00		-	5	-	-
Cost of services	\$	3,560,084	\$ 3,139,457	\$ 346,423	\$ 68,548	\$ 5,656
			\$ 842	\$ 842	\$ 902	\$ 1,414
		100.00%	88.18%	9.73%	1.93%	0.16%

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Revenue Targets

Proposed Revenue Targets

Liberty Utilities - Iowa		Total	Residential	Commercial	Commercial	Industrial
Target Revenues		Company	GR-310	Small GC-320/330(a)	Medium GC-320/330(b)	Interruptible GC-340/350
Target Revenues						
Class Revenues at EROR		2,781,321	1,603,702	286,091	422,768	468,759
Current Class Revenues		1,724,182	1,012,500	184,539	221,264	305,879
Difference (\$)		1,057,139	591,202	101,552	201,505	162,881
Difference (%)		61.3%	58.4%	55.0%	91.1%	53.3%
Target Revenues		2,781,321	1,603,702	286,091	422,768	468,759
Current Revenues		1,724,182	1,012,500	184,539	221,264	305,879
\$ Difference		1,057,139	591,202	101,552	201,505	162,881
% Difference		61.3%	58.4%	55.0%	91.1%	53.3%
Customers		4,155	3,685	395	71	4
Usage (CCF)		12,239,554	2,843,786	587,894	1,463,575	7,344,300
Target Increase (\$/ Customer/ Mo.)			\$ 13.37	\$ 21.44	\$ 235.31	\$ 3,393.35
Target Increase (\$ per CCF)			\$ 0.21	\$ 0.17	\$ 0.14	\$ 0.02

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Summary of Proposed Delivery Rates

Liberty Utilities - Iowa		Commercial		Industrial	
Summary of Rates		Residential	Small	Medium	Interruptible
		GR-310	GC-320/330(a)	GC-320/330(b)	GC-340/350
Current Rates					
Customer Charge (\$ per Month)	\$	7.95	\$ 13.00	\$ 13.00	\$ 1,400.00
Head Block (\$ per CCF)	\$	0.2911	\$ 0.2540	\$ 0.2540	\$ 0.0348
Tail Block (\$ per CCF)		0.1717	0.1320	0.1320	0.0250
Block Break		50	200	200	50,000
Interim Rates					
Customer Charge	\$	10.39	\$ 16.99	\$ 16.99	\$ 1,829.19
Head Block (\$ per CCF)		0.3803	0.3319	0.3319	0.0455
Tail Block (\$ per CCF)		0.2243	0.1725	0.1725	0.0327
Block Break (CCF)		50	200	200	50,000
Phase I					
Customer Charge	\$	16.13	\$ 25.22	\$ 94.63	\$ 1,934.63
Consumption Charge (\$per CCF)		0.3132	0.2835	0.2335	0.0512
Phase II					
Customer Charge	\$	21.87	\$ 33.45	\$ 172.28	\$ 2,040.06
Consumption Charge (\$per CCF)		0.2239	0.2172	0.1881	0.0505
Phase III					
Customer Charge	\$	27.61	\$ 41.69	\$ 249.93	\$ 2,145.50
Consumption Charge (\$per CCF)		0.1347	0.1508	0.1426	0.0498
PGA	\$	0.4200			

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Residential Rate Design: Interim Rate Increase

Target Revenues	Interim Rates	New Rates		
	30.7%			
Target Revenues	1,322,895	1,603,702		
Current Revenues	1,012,500	1,012,500		
\$ Difference	310,395	591,202		
% Difference	30.7%	58.4%		
Number of Bills		44,215		
Usage (CCF)		2,843,786		
Interim Rates	Rate	Units	Revenues	
Current Rate				
Customer Charge	\$ 7.95			
Head Block (\$ per CCF)	0.2911			
Tail Block (\$ per CCF)	0.1717			
Interim Rate				
Customer Charge	\$ 10.39			
Head Block (\$ per CCF)	0.3803			
Tail Block (\$ per CCF)	0.2243			

Interim Rates											
% Use		% Bills	Annual Bill (w/o PGA)				Annual Bill (w/ PGA)				
Annual Use	Less Than Use	Less Than Use	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	
381	5%	15%	\$ 257	\$ 197	\$ 60	31%	\$ 417	\$ 357	\$ 60	17%	
513	15%	31%	292	223	68	31%	507	439	68	16%	
602	25%	43%	315	241	74	31%	568	494	74	15%	
684	35%	54%	336	257	79	31%	623	544	79	14%	
762	45%	64%	355	272	83	31%	676	592	83	14%	
852	55%	73%	377	289	89	31%	735	647	89	14%	
957	65%	81%	403	308	94	31%	805	710	94	13%	
1,110	75%	88%	440	336	103	31%	906	803	103	13%	
1,356	85%	94%	499	382	117	31%	1,069	952	117	12%	
2,023	95%	99%	657	503	154	31%	1,507	1,353	154	11%	

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Residential Rate Design: Phase I of Full Rate Increase

Phase I		Rate	Units	Revenues
Customer Charge		\$ 16.13	44,215	\$ 713,084
Consumption Charge		0.3132	2,843,786	890,619
Target Revenues				1,603,702

Phase I												
% Use		% Bills	Annual Bill (w/o PGA)				Annual Bill (w/ PGA)					
Annual Use	Less Than Use	Less Than Use	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)		
381	5%	15%	\$ 313	\$ 257	\$ 56	22%	\$ 473	\$ 417	\$ 56	13%		
513	15%	31%	354	292	62	21%	570	507	62	12%		
602	25%	43%	382	315	67	21%	635	568	67	12%		
684	35%	54%	408	336	72	21%	695	623	72	12%		
762	45%	64%	432	355	77	22%	752	676	77	11%		
852	55%	73%	460	377	83	22%	818	735	83	11%		
957	65%	81%	493	403	91	22%	895	805	91	11%		
1,110	75%	88%	541	440	102	23%	1,007	906	102	11%		
1,356	85%	94%	618	499	119	24%	1,188	1,069	119	11%		
2,023	95%	99%	827	657	170	26%	1,677	1,507	170	11%		

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Residential Rate Design: Phase II of Full Rate Increase

Phase II		Rate	Units	Revenues
Customer Charge		\$ 21.87	44,215	\$ 966,899
Consumption Charge		0.2239	2,843,786	636,804
Target Revenues				1,603,702

Phase II													
% Use		% Bills	Annual Bill (w/o PGA)				Annual Bill (w/ PGA)						
Annual Use	Less Than Use	Less Than Use	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)			
381	5%	15%	\$ 348	\$ 313	\$ 35	11%	\$ 508	\$ 473	\$ 35	7%			
513	15%	31%	\$ 377	354	23	7%	593	570	23	4%			
602	25%	43%	\$ 397	382	15	4%	650	635	15	2%			
684	35%	54%	\$ 416	408	8	2%	703	695	8	1%			
762	45%	64%	\$ 433	432	1	0%	753	752	1	0%			
852	55%	73%	\$ 453	460	(7)	-2%	811	818	(7)	-1%			
957	65%	81%	\$ 477	493	(17)	-3%	879	895	(17)	-2%			
1,110	75%	88%	\$ 511	541	(30)	-6%	977	1,007	(30)	-3%			
1,356	85%	94%	\$ 566	618	(52)	-8%	1,136	1,188	(52)	-4%			
2,023	95%	99%	\$ 715	827	(112)	-14%	1,565	1,677	(112)	-7%			

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Residential Rate Design: Phase III of Full Rate Increase

Phase III		Rate	Units	Revenues
Customer Charge		\$ 27.61	44,215	\$ 1,220,714
Consumption Charge		0.1347	2,843,786	382,989
Target Revenues				1,603,702

Phase III													
% Use		% Bills		Annual Bill (w/o PGA)				Annual Bill (w/ PGA)					
Annual Use	Less Than Use	Less Than Use	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)			
381	5%	15%	\$ 383	\$ 348	\$ 35	10%	\$ 543	\$ 508	\$ 35	7%			
513	15%	31%	\$ 400	377	23	6%	616	593	23	4%			
602	25%	43%	\$ 412	397	15	4%	665	650	15	2%			
684	35%	54%	\$ 423	416	8	2%	711	703	8	1%			
762	45%	64%	\$ 434	433	1	0%	754	753	1	0%			
852	55%	73%	\$ 446	453	(7)	-2%	804	811	(7)	-1%			
957	65%	81%	\$ 460	477	(16)	-3%	862	879	(16)	-2%			
1,110	75%	88%	\$ 481	511	(30)	-6%	947	977	(30)	-3%			
1,356	85%	94%	\$ 514	566	(52)	-9%	1,083	1,136	(52)	-5%			
2,023	95%	99%	\$ 604	715	(112)	-16%	1,453	1,565	(112)	-7%			

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Small Commercial Rate Design: Interim Rate Increase

Target Revenues	Interim Rates	New Rates		
	30.7%			
Target Revenues	241,112	286,091		
Current Revenues	184,539	184,539		
\$ Difference	56,573	101,552		
% Difference	30.7%	55.0%		
Number of Bills		4,736		
Usage (CCF)		587,894		
Interim Rates	Rate	Units	Revenues	
Current Rate				
Customer Charge	\$ 13.00			
Head Block (\$ per CCF)	0.2540			
Tail Block (\$ per CCF)	0.1320			
Interim Rate				
Customer Charge	\$ 16.99			
Head Block (\$ per CCF)	0.3319			
Tail Block (\$ per CCF)	0.1725			

Interim Rates											
% Use		% Bills	Annual Bill (w/o PGA)				Annual Bill (w/ PGA)				
Annual Use	Less Than Use	Less Than Use	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	
657	8%	8%	\$ 422	\$ 323	\$ 99	31%	\$ 698	\$ 599	\$ 99	17%	
1,012	18%	49%	536	410	126	31%	961	835	126	15%	
1,362	28%	61%	615	471	144	31%	1,187	1,043	144	14%	
1,753	37%	69%	696	533	163	31%	1,432	1,269	163	13%	
2,163	47%	77%	782	599	183	31%	1,691	1,507	183	12%	
2,508	57%	82%	853	653	200	31%	1,906	1,706	200	12%	
2,999	67%	87%	949	726	223	31%	2,209	1,986	223	11%	
3,386	76%	92%	1,025	785	241	31%	2,447	2,207	241	11%	
3,753	86%	95%	1,095	838	257	31%	2,671	2,414	257	11%	
4,466	96%	99%	1,228	940	288	31%	3,104	2,816	288	10%	

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Small Commercial Rate Design: Phase I of Full Rate Increase

Phase I		Rate	Units	Revenues
Customer Charge		\$ 25.22	4,736	\$ 119,427
Consumption Charge		0.2835	587,894	166,664
Target Revenues				286,091

Phase I												
% Use		% Bills	Annual Bill (w/o PGA)				Annual Bill (w/ PGA)					
Annual Use	Less Than Use	Less Than Use	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)		
657	8%	8%	\$ 489	\$ 422	\$ 67	16%	\$ 765	\$ 698	\$ 67	10%		
1,012	18%	49%	590	536	54	10%	1,015	961	54	6%		
1,362	28%	61%	689	615	74	12%	1,261	1,187	74	6%		
1,753	37%	69%	800	696	103	15%	1,536	1,432	103	7%		
2,163	47%	77%	916	782	134	17%	1,824	1,691	134	8%		
2,508	57%	82%	1,014	853	161	19%	2,067	1,906	161	8%		
2,999	67%	87%	1,153	949	204	21%	2,412	2,209	204	9%		
3,386	76%	92%	1,263	1,025	237	23%	2,685	2,447	237	10%		
3,753	86%	95%	1,367	1,095	272	25%	2,943	2,671	272	10%		
4,466	96%	99%	1,569	1,228	341	28%	3,444	3,104	341	11%		

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Small Commercial Rate Design: Phase II of Full Rate Increase

Phase II	Rate	Units	Revenues
Customer Charge	\$ 33.45	4,736	\$ 158,417
Consumption Charge	0.2172	587,894	127,674
Target Revenues			286,091

Phase II											
% Use		% Bills	Annual Bill (w/o PGA)				Annual Bill (w/ PGA)				
Annual Use	Less Than Use	Less Than Use	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	
657	8%	8%	\$ 544	\$ 489	\$ 55	11%	\$ 820	\$ 765	\$ 55	7%	
1,012	18%	49%	\$ 621	590	32	5%	1,046	1,015	32	3%	
1,362	28%	61%	\$ 697	689	8	1%	1,269	1,261	8	1%	
1,753	37%	69%	\$ 782	800	(17)	-2%	1,518	1,536	(17)	-1%	
2,163	47%	77%	\$ 871	916	(45)	-5%	1,780	1,824	(45)	-2%	
2,508	57%	82%	\$ 946	1,014	(67)	-7%	2,000	2,067	(67)	-3%	
2,999	67%	87%	\$ 1,053	1,153	(100)	-9%	2,312	2,412	(100)	-4%	
3,386	76%	92%	\$ 1,137	1,263	(126)	-10%	2,559	2,685	(126)	-5%	
3,753	86%	95%	\$ 1,217	1,367	(150)	-11%	2,793	2,943	(150)	-5%	
4,466	96%	99%	\$ 1,371	1,569	(197)	-13%	3,247	3,444	(197)	-6%	

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Small Commercial Rate Design: Phase III of Full Rate Increase

Phase III	Rate	Units	Revenues
Customer Charge	\$ 41.69	4,736	\$ 197,407
Consumption Charge	0.1508	587,894	88,684
Target Revenues			286,091

Phase III											
% Use		% Bills	Annual Bill (w/o PGA)				Annual Bill (w/ PGA)				
Annual Use	Less Than Use	Less Than Use	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	
657	8%	8%	\$ 599	\$ 544	\$ 55	10%	\$ 875	\$ 820	\$ 55	7%	
1,012	18%	49%	\$ 653	621	32	5%	1,078	1,046	32	3%	
1,362	28%	61%	\$ 706	697	8	1%	1,278	1,269	8	1%	
1,753	37%	69%	\$ 765	782	(18)	-2%	1,501	1,518	(18)	-1%	
2,163	47%	77%	\$ 826	871	(45)	-5%	1,735	1,780	(45)	-3%	
2,508	57%	82%	\$ 878	946	(68)	-7%	1,932	2,000	(68)	-3%	
2,999	67%	87%	\$ 952	1,053	(100)	-10%	2,212	2,312	(100)	-4%	
3,386	76%	92%	\$ 1,011	1,137	(126)	-11%	2,433	2,559	(126)	-5%	
3,753	86%	95%	\$ 1,066	1,217	(150)	-12%	2,642	2,793	(150)	-5%	
4,466	96%	99%	\$ 1,174	1,371	(198)	-14%	3,049	3,247	(198)	-6%	

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Medium Commercial Rate Design: Interim Rate Increase

CONFIDENTIAL: Liberty Utilities - Iowa				
Medium Commercial Rate Design				
Phased Approach to SFV				
Target Revenues	Interim Rates	New Rates		
	30.7%			
Target Revenues	289,095	422,768		
Current Revenues	221,264	221,264		
\$ Difference	67,831	201,505		
% Difference	30.7%	91.1%		
Number of Bills		856		
Usage (CCF)		1,463,575		
Interim Rates	Rate	Units	Revenues	
Current Rate				
Customer Charge	\$ 13.00			
Head Block (\$ per CCF)	0.2540			
Tail Block (\$ per CCF)	0.1320			
Interim Rate				
Customer Charge	\$ 16.99			
Head Block (\$ per CCF)	0.3319			
Tail Block (\$ per CCF)	0.1725			

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Interim Rates												
% Use		% Bills	Annual Bill (w/o PGA)				Annual Bill (w/ PGA)					
Annual Use	Less Than Use	Less Than Use	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)		
5,665	5%	16%	\$ 1,452	\$ 1,111	\$ 341	31%	\$ 3,831	\$ 3,490	\$ 341	10%		
8,417	13%	42%	1,961	1,501	460	31%	5,496	5,036	460	9%		
10,485	23%	60%	2,338	1,789	549	31%	6,742	6,193	549	9%		
16,109	31%	72%	3,350	2,564	786	31%	10,116	9,330	786	8%		
20,500	40%	81%	4,122	3,155	967	31%	12,732	11,765	967	8%		
27,749	49%	88%	5,372	4,112	1,261	31%	17,027	15,766	1,261	8%		
36,789	59%	93%	6,931	5,305	1,626	31%	22,383	20,756	1,626	8%		
40,827	64%	95%	7,627	5,838	1,790	31%	24,775	22,985	1,790	8%		
140,527	79%	97%	24,822	18,998	5,824	31%	83,844	78,020	5,824	7%		
140,826	88%	99%	24,874	19,038	5,836	31%	84,021	78,184	5,836	7%		

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Medium Commercial Rate Design: Phase I of Full Rate Increase

Phase I		Rate	Units	Revenues
Customer Charge		\$ 94.63	856	\$ 81,040
Consumption Charge		0.2335	1,463,575	341,728
Target Revenues				422,768

Phase I										
% Use		% Bills	Annual Bill (w/o PGA)				Annual Bill (w/ PGA)			
Annual Use	Less Than Use	Less Than Use	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)
5,665	5%	16%	\$ 2,458	\$ 1,452	\$ 1,007	69%	\$ 4,838	\$ 3,831	\$ 1,007	26%
8,417	13%	42%	3,101	1,961	1,140	58%	\$ 6,636	5,496	1,140	21%
10,485	23%	60%	3,584	2,338	1,246	53%	\$ 7,988	6,742	1,246	18%
16,109	31%	72%	4,897	3,350	1,547	46%	\$ 11,663	10,116	1,547	15%
20,500	40%	81%	5,922	4,122	1,800	44%	\$ 14,532	12,732	1,800	14%
27,749	49%	88%	7,615	5,372	2,243	42%	\$ 19,270	17,027	2,243	13%
36,789	59%	93%	9,726	6,931	2,795	40%	\$ 25,177	22,383	2,795	12%
40,827	64%	95%	10,669	7,627	3,041	40%	\$ 27,816	24,775	3,041	12%
140,527	79%	97%	33,949	24,822	9,126	37%	\$ 92,970	83,844	9,126	11%
140,826	88%	99%	34,018	24,874	9,145	37%	\$ 93,165	84,021	9,145	11%

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Medium Commercial Rate Design: Phase II of Full Rate Increase

Phase II		Rate	Units	Revenues
Customer Charge		\$ 172.28	856	\$ 147,535
Consumption Charge		0.1881	1,463,575	275,233
Target Revenues				422,768

Phase II										
% Use		% Bills	Annual Bill (w/o PGA)				Annual Bill (w/ PGA)			
Annual Use	Less Than Use	Less Than Use	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)
5,665	5%	16%	\$ 3,133	\$ 2,458	\$ 675	27%	\$ 5,512	\$ 4,838	\$ 675	14%
8,417	13%	42%	\$ 3,651	3,101	550	18%	\$ 7,186	6,636	550	8%
10,485	23%	60%	\$ 4,040	3,584	456	13%	\$ 8,443	7,988	456	6%
16,109	31%	72%	\$ 5,097	4,897	200	4%	\$ 11,863	11,663	200	2%
20,500	40%	81%	\$ 5,923	5,922	1	0%	\$ 14,533	14,532	1	0%
27,749	49%	88%	\$ 7,287	7,615	(328)	-4%	\$ 18,942	19,270	(328)	-2%
36,789	59%	93%	\$ 8,987	9,726	(738)	-8%	\$ 24,439	25,177	(738)	-3%
40,827	64%	95%	\$ 9,747	10,669	(922)	-9%	\$ 26,894	27,816	(922)	-3%
140,527	79%	97%	\$ 28,501	33,949	(5,448)	-16%	\$ 87,522	92,970	(5,448)	-6%
140,826	88%	99%	\$ 28,557	34,018	(5,462)	-16%	\$ 87,703	93,165	(5,462)	-6%

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Medium Commercial Rate Design: Phase III of Full Rate Increase

Phase III		Rate	Units	Revenues
Customer Charge		\$ 249.93	856	\$ 214,029
Consumption Charge		0.1426	1,463,575	208,739
Target Revenues				422,768

Phase III										
% Use		% Bills	Annual Bill (w/o PGA)				Annual Bill (w/ PGA)			
Annual Use	Less Than Use	Less Than Use	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)
5,665	5%	16%	\$ 3,807	\$ 3,133	\$ 674	22%	\$ 6,186	\$ 5,512	\$ 674	12%
8,417	13%	42%	\$ 4,200	3,651	549	15%	\$ 7,735	7,186	549	8%
10,485	23%	60%	\$ 4,494	4,040	455	11%	\$ 8,898	8,443	455	5%
16,109	31%	72%	\$ 5,296	5,097	199	4%	\$ 12,062	11,863	199	2%
20,500	40%	81%	\$ 5,922	5,923	(1)	0%	\$ 14,532	14,533	(1)	0%
27,749	49%	88%	\$ 6,956	7,287	(331)	-5%	\$ 18,611	18,942	(331)	-2%
36,789	59%	93%	\$ 8,245	8,987	(742)	-8%	\$ 23,697	24,439	(742)	-3%
40,827	64%	95%	\$ 8,821	9,747	(926)	-9%	\$ 25,968	26,894	(926)	-3%
140,527	79%	97%	\$ 23,038	28,501	(5,462)	-19%	\$ 82,060	87,522	(5,462)	-6%
140,826	88%	99%	\$ 23,081	28,557	(5,476)	-19%	\$ 82,228	87,703	(5,476)	-6%

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Industrial Rate Design: Interim Rate Increase

CONFIDENTIAL: Liberty Utilities - Iowa				
Industrial Rate Design				
Phased Approach to SFV				
Target Revenues	Interim Rates	New Rates		
	30.7%			
Target Revenues	399,650	468,759		
Current Revenues	305,879	305,879		
\$ Difference	93,771	162,881		
% Difference	30.7%	53.3%		
Number of Bills		48		
Usage (CCF)		7,344,300		
Interim Rates	Rate	Units	Revenues	
Current Rate				
Customer Charge	\$ 1,400.00			
Head Block (\$ per CCF)	0.0348			
Tail Block (\$ per CCF)	0.0250			
Interim Rate				
Customer Charge	\$ 1,829.19			
Head Block (\$ per CCF)	0.0455			
Tail Block (\$ per CCF)	0.0327			

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Interim Rates									
Annual Use	Annual Bill (w/o PGA)					Annual Bill (w/ PGA)			
	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)		Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)
125,210	27,643	21,157	6,486	30.7%		80,232	73,746	6,486	8.8%
1,133,060	66,643	51,007	15,637	30.7%		542,528	526,892	15,637	3.0%
3,066,910	129,811	99,353	30,458	30.7%		1,417,913	1,387,455	30,458	2.2%
3,446,080	142,196	108,832	33,364	30.7%		1,589,549	1,556,186	33,364	2.1%

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Industrial Rate Design: Phase I of Full Rate Increase

Phase I	Rate	Units	Revenues
Customer Charge	\$ 1,934.63	48	\$ 92,862
Consumption Charge	0.0512	7,344,300	375,897
Target Revenues			468,759

Phase I	Annual Bill (w/o PGA)				Annual Bill (w/ PGA)			
Annual Use	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)
125,210	\$ 29,626	\$ 27,643	\$ 1,983	7%	\$ 82,214	\$ 80,232	\$ 1,983	2%
1,133,060	81,228	66,643	14,585	22%	\$ 557,113	542,528	14,585	3%
3,066,910	180,241	129,811	50,431	39%	\$ 1,468,343	1,417,913	50,431	4%
3,446,080	199,655	142,196	57,459	40%	\$ 1,647,008	1,589,549	57,459	4%

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Industrial Rate Design: Phase II of Full Rate Increase

Phase II	Rate	Units	Revenues
Customer Charge	\$ 2,040.06	48	\$ 97,923
Consumption Charge	0.0505	7,344,300	370,836
Target Revenues			468,759

Phase II	Annual Bill (w/o PGA)					Annual Bill (w/ PGA)				
Annual Use	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)		Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	
125,210	\$ 30,804	\$ 29,626	\$ 1,178	4%		\$ 83,392	\$ 82,214	\$ 1,178	1%	
1,133,060	\$ 81,700	81,228	472	1%		\$ 557,585	557,113	472	0%	
3,066,910	\$ 179,360	180,241	(882)	0%		\$ 1,467,462	1,468,343	(882)	0%	
3,446,080	\$ 198,508	199,655	(1,147)	-1%		\$ 1,645,861	1,647,008	(1,147)	0%	

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Industrial Rate Design: Phase III of Full Rate Increase

Phase III	Rate	Units	Revenues
Customer Charge	\$ 2,145.50	48	\$ 102,984
Consumption Charge	0.0498	7,344,300	365,775
Target Revenues			468,759

Phase III										
Annual Bill (w/o PGA)						Annual Bill (w/ PGA)				
Annual Use	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)		Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	
125,210	\$ 31,981	\$ 30,804	\$ 1,178	4%		\$ 84,570	\$ 83,392	\$ 1,178	1%	
1,133,060	\$ 82,172	81,700	472	1%		\$ 558,058	557,585	472	0%	
3,066,910	\$ 178,478	179,360	(882)	0%		\$ 1,466,580	1,467,462	(882)	0%	
3,446,080	\$ 197,361	198,508	(1,147)	-1%		\$ 1,644,714	1,645,861	(1,147)	0%	

Liberty Utilities - Iowa Summary of Rates		Residential					
		Residential					
Proposed Customer Charge (Phase III)	\$	27.61					
Customer Costs							
Basic Customer Costs	\$	12.58					
Fully Loaded Customer Costs	\$	27.61					
IA Gas Utility Customer Charges							
Alliant - Interstate P&L	\$	12.82					
Black Hills Energy		18.25					
Liberty Utilities		7.95					
MidAmerican Energy		10.00					
Average Iowa Gas Utilities	\$	12.26					
US Gas Utility Customer Charges							
Average US Gas Utilities	\$	11.25					

Source: American Gas Association, Energy Analysis, Natural Gas Utility Rate Structure: The Customer Charge Component - 2015 Update, May 28, 2015.

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Basic Customer Costs

Basic Customer Costs		Total Company	Residential GR-310	Commercial Small GC-320/330(a)	Commercial Medium GC-320/330(b)	Industrial Interruptible GC-340/350
Basic Customer Costs						
Plant						
380 - Services		3,848,542	3,393,833	374,492	74,102	6,114
381 - Meters		1,368,637	881,891	192,866	293,880	-
382 - Meter installation		1,686,111	1,086,458	237,604	362,049	-
383 - House regulators		133,479	86,008	18,810	28,661	-
385 - Industrial Meas & Reg stations		2,210	-	-	-	2,210
Total		7,038,979	5,448,190	823,771	758,693	8,325
Accumulated Depreciation						
380 - Services		3,829,988	3,377,472	372,687	73,745	6,085
381 - Meters		(3,414)	(2,200)	(481)	(733)	-
382 - Meter installation		1,025,303	660,661	144,484	220,158	-
383 - House regulators		69,043	44,488	9,729	14,825	-
385 - Industrial Meas & Reg stations		1,223	-	-	-	1,223
Total		4,922,142	4,080,421	526,419	307,995	7,308
Net income before taxes & interest						
Net Plant		2,116,837	1,367,769	297,353	450,698	1,017
Net Income after taxes		164,267	\$ 106,139	\$ 23,075	\$ 34,974	\$ 79
Add: Income Taxes		83,434	53,910	11,720	17,764	40
Net income before taxes & interest		\$ 247,700	\$ 160,049	\$ 34,795	\$ 52,738	\$ 119
O&M Expenses						
874 - Mains & services expense		4,940	2,648	449	664	1,180
876 - Measurement & Reg - Industrial		-	-	-	-	-
878 - Meter and House Regulator		59,426	38,292	8,374	12,760	-
879 - Customer installation		-	-	-	-	-
902 - Meter reading expense		8,409	7,458	799	144	8
903 - Customer records & collections		171,687	152,265	16,308	2,949	165
909 - Info & Inst Advertising		4,037	3,580	383	69	4
913 - Advertising		710	630	67	12	1
916 - Misc Sales Expense		-	-	-	-	-
Total		249,211	204,872	26,381	16,599	1,358
Depreciation Expense						
380 - Services		55,907	49,301	5,440	1,076	89
381 - Meters		156,306	100,717	22,026	33,563	-
382 - Meter installation		61,450	39,595	8,659	13,195	-
383 - House regulators		2,607	1,680	367	560	-
385 - Industrial Meas & Reg stations		33	-	-	-	33
		276,303	191,294	36,493	48,394	121
Basic customer-related costs						
Basic customer-related costs		773,214	\$ 556,215	\$ 97,669	\$ 117,731	\$ 1,598
Number of customers		4,155	3,685	395	71	4
Monthly basic cost per customer		\$ 15.51	\$ 12.58	\$ 20.62	\$ 137.48	\$ 33.30

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Fully Allocated Customer Costs

	Total Company	Residential GR-310	Commercial Small GC-320/330(a)	Commercial Medium GC-320/330(b)	Industrial Interruptible GC-340/350
Fully Allocated Customer Costs					
Rate Base	\$ 3,225,669	\$ 2,230,697	\$ 426,228	\$ 567,310	\$ 1,433
Net Income after taxes	250,312	173,102	33,075	44,023	111
Add: Income Taxes	127,138	87,921	16,799	22,360	56
Net income before taxes & interest	\$ 377,449	\$ 261,023	\$ 49,875	\$ 66,383	\$ 168
Add: O&M	681,354	531,516	75,881	67,389	6,568
Add: Depreciation	365,572	261,851	46,552	56,818	352
Add: Taxes other than income	206,706	160,697	23,979	21,678	351
Add: Interest on deposits	9,873	5,627	1,120	1,761	1,365
Required Customer Revenues	\$ 1,640,955	\$ 1,220,714	\$ 197,407	\$ 214,029	\$ 8,804
Number of Customers	4,155	3,685	395	71	4
Monthly cost per customer	\$ 32.91	\$ 27.61	\$ 41.69	\$ 249.93	\$ 183.42